



INSIDE DOPE

by GEORGE F. TAUBENECK

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Story of the Week

Judging by the Hooper-ratings of popular radio shows, the American public guffaws loudest when somebody slips on a banana-peel, is disappointed in love, or is horribly insulted. If we can take our cue from that sobering observation, perhaps the following yarn won't be taken amiss:

A spirit of the keenest rivalry existed between the editors of two small Western newspapers. They'd cut each other's throats, or sell their grandmothers into white slavery, for a "scoop."

The editor of the *Star* was in momentary supremacy when this story begins. Secretly, he had purchased a new high-speed press, and had installed it in his establishment one dark and moonless night. That "coup" put him a "leg up" on his hated rival.

Consequently, the following notice appeared in the next issue of his weekly sheet:

"All of our readers will be interested to hear about the installation of our new Super-Speedy press. With this press, it is possible to print, cut, and fold 10,000 copies of the *Star* within a one-hour period. You are invited to witness a demonstration of this new machine, which will begin promptly at 2:00 p.m. Thursday."

After copies of the *Star* which bore this notice had been circulated, the rival publication appeared with the following front-page retort:

"Please be on time when you witness the demonstration of the *Star's* new speedy press. It will begin promptly at 2:00 p.m. and end promptly at 2:03 p.m.; when the entire weekly circulation of that paper will have been printed."

Public Opinion Trend

Nearly one-half (49%) of the people of Minnesota believe that present federal laws governing labor unions are not strict enough, according to the Minnesota Poll, conducted by the *Minneapolis Tribune* on the eve of the first anniversary of the Taft-Hartley law.

Some 60% of those interviewed, in this cross-section poll of the adult population of Minnesota insisted that they knew what the T-H law was all about; and 29% of this group said the law should be left as it is, 14% thought it should be repealed outright, while 34% urged that changes be made in it.

More of the "change it" group favored revisions that would make the law stricter than proposed changes that would ease the restrictions on unions.

Four times as many members of families affiliated with labor unions believe that present federal labor laws are too strict, as compared with non-union residents of Minnesota. However, 30% of the union members polled believed that the Taft-Hartley Act is not strict enough.

Thirty-four per cent of the Minnesota families which have union connections were registered as being in favor of doing away with the T-H law entirely, compared with 7% of the non-union families' members who felt that way. Younger persons were found to be more strongly for repealing the legislation than older residents.

Suggested changes in the Taft-Hartley Act included such proposals as "making the law more strict,"

(Concluded on Page 9, Column 1)

Crosley Introduces 7-Ft. 'Apartment' Model at \$219.95

NEW YORK CITY—A 7-cu. ft. refrigerator that is claimed to occupy the same floor space as the conventional 4-cu. ft. model was introduced to distributors here last week by the Crosley division of Avco Mfg. Corp.

Designed for use in small homes and apartments, the unit will retail for \$219.95, according to Inwood Smith, manager of Crosley's refrigeration division.

The new unit, called the model S-79, is of the Shelvador type. It has a frozen food compartment with a capacity for 25 lbs. of food. Also featured are an improved electro-saver unit that requires greatly reduced space, a transparent polystyrene meat tray, and an eye-level temperature control dial.

Appliance Production Is Catching Up, Study Says

WASHINGTON, D. C.—Are we shifting from a seller's to a buyer's market?

In some industries, "yes," declares the *United States News* in its Aug. 20 issue.

The appliance situation is spotty. "Refrigerator demand may not be met in all models before late 1949 or 1950," it is stated. "Refrigerators are listed next to cars as a major shortage item. Output of electric refrigerators is estimated at 367,000 a month in 1948, compared with 165,000 in 1939.

"One large producer [General Electric Co.] just raised prices, after lowering them early in 1948. Higher costs of material and labor forced the change."

Household furnishings and equipment are being produced fast enough to meet replacement demands and needs of new families, too, in all but a few instances, according to the magazine.

"Vacuum cleaner output, averaging 311,000 a month in 1948, is more than three times 1939 output of 90,000 a month. Supply is exceeding demand at today's prices. Production in May was 25% lower than the December, 1947 peak. Competition for sales is keen.

"Furniture output, at four times prewar levels, caught up with demand some months ago. Manufacturers expect to cut production slightly this year."

In the washer field, the supply of conventional machines "has been large for some time. Lower priced automatic machines still are scarce, here and there. Electric washing machine output is up to 275,000 a month in 1948, more than twice 1939 production.

"Ironers in June sold at a rate 60% (Concluded on Page 4, Column 5)

'Freeze-O-Matic' Reveals New Model, Larger Plant

BROOKLYN—Improved 1949 models of the lowboy "Freeze-O-Matic Jr." refrigerators will be produced and assembled in a newly acquired plant at 620 Dean St. here, announces Acme-National Refrigeration Co., Inc.

Production of this model is expected to reach 1,500 per month by Sept. 30, compared with the former output of 1,200 monthly.

"It is hoped that the greater production facilities will not only take care of the tremendous amount of back orders, but will enable the company to offset the increasing rise in prices," declared A. Cohen, sales manager.

The new model, said to be slightly larger in storage capacity—nearly 4 cu. ft.—is expected to retail at \$199.50, same as the previous unit. (Concluded on Page 21, Column 2)

Reciprocal City Licensing Aim Of New Code

DETROIT—A reciprocal licensing arrangement for refrigeration contractors between the city of Detroit and other municipalities in Michigan is provided for in the revised refrigeration code of Detroit which went into effect Thursday, Aug. 26.

In addition, there were several technical changes in the code.

Around Detroit, as with most major cities, there are numerous suburbs. With the increasing trend toward licensing, contractors have expressed the fear that they would have to pass examinations in all the cities, as well as pay various licensing fees in each.

The new section of the Detroit code would recognize contractors licensed by other communities in the state, provided the licensing requirements were "substantially equal" to Detroit's and the arrangement worked both ways.

Contractors licensed in other communities would then have to pay only a nominal registration fee in Detroit.

One large Detroit suburb is now working on a refrigeration code, and it may soon adopt the Detroit code more or less unchanged. The new reciprocal licensing provision would probably be included.

In the technical sections of the revised Detroit code, one completely new requirement was adopted:

(Concluded on Page 4, Column 4)

Better Business Group Outlines Functions of 'True' Air Conditioning

NEW YORK CITY—"Minimum functions of 'Air Conditioning' are the control of temperature, humidity, and movement of air within an enclosed space," says a Service Bulletin "Air Conditioning Defined" issued Aug. 19 by the National Better Business Bureau, Inc., Chrysler building, New York City.

The bureau recommends that if equipment is advertised as providing "air conditioning" or as being an "air conditioner" it offer, as a minimum, the control of temperature, humidity, and movement of air within an enclosed space.

Text of the bulletin on air conditioning issued by the National Better Business Bureau:

"Just what is air conditioning? The constantly expanding use of air conditioning in homes and in com- (Concluded on Page 21, Column 2)

Homemakers 'Practice' Food Freezing In New Hotpoint Freezer Promotion

CHICAGO—"Food freezing parties" in which the dealer will provide the materials on which prospective purchasers of home freezers can try out preparing and packaging techniques, is a new promotion program inaugurated by Hotpoint, Inc., reports Hollis C. Doss, sales planning manager.

Objective of the program is to stimulate consumer interest in the home packaging and freezing of foods, thus leading up to the purchase of a home freezer.

In the operation of the plan, the dealer invites homemakers in his area to attend the "food freezing party," and participate in the actual preparation of fresh fruits, meats, or vegetables. The dealer will provide the fresh foods as well as packaging materials and facilities for the preparation, packaging, and freezing. After packaging their foods, guests

Dealers Prove Optimistic on Effect of Time Selling Curbs Dry Ice Producers Hit by FTC Order

WASHINGTON, D. C.—A cease and desist order alleging several violations of the Federal Trade Commission Act in connection with the sale of liquid and solid carbon dioxide has been issued by FTC against Pure Carbonic, Inc.; Air Reduction Co., Inc.; Liquid Carbonic Corp.; and Michigan Alkali Co.

The order requires that the companies in question "cease and desist from entering into, continuing, co-operating, or carrying out any planned common course of action, understanding, agreement, combination or conspiracy between and among any two or more of said respondents or between one or more of said respondents and others not parties hereto to do or perform, either directly or indirectly, any of the following acts or practices:

"1. Purchasing the productive or distributive facilities or other assets of competitors, or control thereof.

"2. Entering into or carrying out purchase agreements with manufacturers of solid and/or liquid carbon dioxide whereby any one or more of said respondents agrees to purchase the entire output of any of said manufacturers or a substantial portion thereof.

"3. Contracting to purchase or purchasing liquid and/or solid carbon dioxide from competing producers upon condition that said producers will not sell to competitors of any (Concluded on Page 21, Column 1)

Pennsylvania Dealers Report July Sales Up

PITTSBURGH—The best July on record for sales of electric ranges, home freezers, water heaters, garbage disposers, and dishwashers has been chalked up by electric appliance dealers in the southwestern Pennsylvania area served by the West Penn Power Co. here.

Major gains over July, 1947 were scored in the following appliances: electric ranges 76%, refrigerators 43%, water heaters 42%, home and farm freezers 26%, and conventional washers 15%.

July reports from 689 dealers showed the following unit volume comparisons with June, 1948, and (Concluded on Page 21, Column 3)

Many Believe It Will Help by Eliminating 'Terms' Competition

By Phil B. Redeker and George M. Hanning

CLEVELAND—Federal curbs on consumer credit held no fears for many appliance retailers here even when they expected the new regulations to require a third down with 12 months to pay.

In interviews conducted just prior to the Federal Reserve Board's announcement limiting time payments to 20% down and 15 months to pay on appliances valued at less than \$1,000, Cleveland retailers considered the establishment of a "floor" on credit terms as a requirement that will force dealers to sell merchandise rather than terms.

Dealers who already required down payments and terms equal or close to those issued by the FRB, dismissed the requirements as having no or little effect on their business. Others who were getting 10% down and allowing up to two years to pay considered the new controls as "very bad for business."

Appliance Buyer Meyers of Halle Bros. department store felt that the store's business in major appliances would be affected very little by credit controls. He said that most of the department's business was done on a charge basis with full payment made in 30 to 90 days without a carrying charge. When time was desired, the store asked 20% down with 12 months to pay. Meyers asserted that such a set-up was general among local department stores.

Bill Schulz, manager of United Vacuum Cleaner Stores, insisted that

Complete text of the new Regulation W regulating instalment terms is published on pages 10 and 11 of this issue.

credit controls would not make a bit of difference to appliance sales.

"All that controls will do is to delay delivery a bit. No salesman is going to turn a customer out the door just because she does not have the required down payment," he stated.

"If the woman only has \$20 we take that and let her add to it when she can until she has enough for the down payment. Then we deliver the appliance.

"We've been all through this before," he continued. "It's nothing new. During the war, we didn't have the merchandise. So we took the customer's money and put her name on a list. When we got the appliance, we delivered it.

"Now we have plenty of merchandise, so there should be no trouble at all.

"With all stores having to meet the same credit terms, we know that she cannot make any better deal at any other store. So we will sell her on our brand of appliances and not on terms."

"I'm all for the regulations and I wish they'd go back to the old terms under Regulation 'W'—a third down and 15 months to pay," commented Martin Polster of Polster's furniture and appliance store on Lorain Ave. on Cleveland's west side.

"Why? Because first, it takes the matter of time payment terms out of the fight for business, and that's a break for the smaller, independent type of dealer.

"With the same terms for all dealers, it means that the smaller dealer who has the bank or finance company checking each time payment sale carefully doesn't have to worry about the 'no money down, 24 months to pay' advertising by the borax houses who can go to a bank and get a loan that will carry a (Concluded on Page 4, Column 4)

Slash the 'High Cost of Eating'
FOR YOUR CUSTOMERS
 with
BEN-HUR
FARM AND HOME FREEZERS



Every one among thousands of BEN-HUR owners will tell you that his freezer is his most profitable investment—it more than saves its cost by cutting the family's food budget—10 to 50%. Here's your greatest opportunity to make hosts of friends—and sales. Show your prospective customer that every dollar he spends for the purchase of a BEN-HUR Farm & Home Freezer comes back to him—in the form of reduced food costs, food savings, time savings in meal preparation, better, more healthful meals all the year around. There's a BEN-HUR Freezer for every family's needs—6, 9, 12.5, and 18 cubic foot sizes. A few territories still available. Write!

Compare them all ... and you'll choose the Nationally-Advertised BEN-HUR Freezer Line.

BEN-HUR MFG. CO., Dept. AC
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HUR FARM and HOME FREEZERS

Retailers July Sales Drop 8% from June

WASHINGTON, D. C. — Dollar sales of independent retailers in July were 8% below June in what might be more than a seasonal slump, the U. S. Department of Commerce has reported. They were still 9% above July last year, however.

Basing its figures on reports from 13,500 independent retailers of all types of goods in all parts of the country, the department reported that as compared with last year, department store sales gains were the same as the national average while furniture store sales were up 10%.

Schaefer Opens Showroom In Merchandise Mart

CHICAGO—The opening of a new showroom in the Merchandise Mart in Chicago by Schaefer, Inc. of Minneapolis, has been announced by President Harold L. Schaefer.

Schaefer, Inc. will display and sell its Pak-A-Way line of home freezers, the Schaefer ice cream cabinets and the Clear View frozen food cabinets in the Merchandise Mart.

The new showroom, comprising 1,200 sq. ft. of space on the eleventh floor, will be under the direction of David Pascal.

Ackerman Opens No. 2

NEW ORLEANS—Ackermann Refrigeration, Inc., 8901 Oak St., has opened a second store at 8310 Oak.

Refrigeration Code Is Heatedly Debated by Various Miami Groups

MIAMI, Fla.—Following a meeting in which a proposed new code was heatedly assailed and defended, Miami Public Service Director R. A. Williams disclosed that he will resume efforts to work out a satisfactory air conditioning and refrigeration ordinance for Miami.

Denouncing the proposed new code were attorneys for air conditioned stores, dairy and ice cream chains, and food stores. One of the most outspoken critics was Richard H. Hunt, representing Richards Store, who charged that the ordinance would put his client in "protective custody" of air conditioning dealers.

The ordinance in question, which already has been passed on first reading by the city commission, was defended by representatives of the air conditioning and refrigeration industries, with J. E. Noll acting as chief spokesman.

Members of the committee named by Williams to draft a code are: Ellis Knox, chief electrical inspector, chairman; Irving C. Bauser, representing large groceries; J. D. Noll, domestic and commercial refrigeration; C. E. Kirby, appliance companies; L. E. Cann, Coca-Cola; J. W. Field, dairies and ice cream manufacturers; Ralph W. Lazear, air conditioning industry; J. J. Harris, commercial refrigeration; Joseph T. Hatton, department stores; and F. H. Cramer, ice industry.

Service Firms' Suit Says RCA Service Contract Is Anti-Trust Violation

PHILADELPHIA — Charging that Radio Corp. of America violates anti-trust laws in requiring purchasers of its television sets to sign an exclusive servicing contract with its subsidiary, R.C.A. Service Co., Inc., for the period of one year after the sale, eight radio and television firms here have filed suit in the U. S. District Court to recover triple damages and to enjoin R.C.A. from continuing its contracts.

The eight independent firms are members of the Philadelphia Radio Servicemen's Association, which is a co-plaintiff in the suit. Their claims for damages total \$210,000, which is said to be three times the losses they have sustained since the R.C.A. contracts first went into effect in September, 1946.

The suit asks the court to hold the exclusive service contract invalid and in violation of the Sherman, Clayton, and Robinson-Patman anti-trust laws.

Only when R.C.A. finds it unprofitable for its own servicing subsidiary to perform service on the sets does R.C.A. allow independent servicemen to work on them, the suit said, and then the customer is required to pay the same fee as if R.C.A. had done the service.

Complaining firms and the amount of damages they seek are: Richard G. Devaney, \$15,000; Robert R. Meyers and Wesley F. Holden trading as Pioneer Television Co., \$45,000; Richard E. Abbott, trading as Dick's Radio & Electric Service, \$3,000; David Krantz, \$7,500; Stanley A. Winiarski, \$4,500; Albert M. Haas, \$45,000; Louis Witte, trading as Witte Radio & Television Co., \$45,000; and George Patsig, trading as Radio Specialty Co., \$45,000.

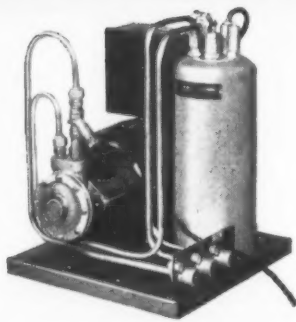
\$35 Per Week Draw Against 8% on Gross Favored by Dealer

HUNTINGTON, Ind. — A simple, but effective commission arrangement for major appliance outside salesmen has been worked out by the Smith Furniture Co. here.

After the prospective salesman has been selected, he is given a weekly drawing account of \$35. His commission is set at 8% on gross sales. The account is squared up and settled at the end of each week.

While the \$35 weekly drawing account is small, the idea behind this amount is to provide a stimulus for the salesman to get out and dig for business. If the salesman is paid more, say \$45 or more a week drawing account, he may not "hustle" so hard.

5620 glasses of highly carbonated water produced from a single tank of CO₂ gas

(Above) Model CB-305 Temprite Packaged Carbonator, to be used with existing or separate soda cooling systems, is also obtainable enclosed in an attractive metal cabinet for installations in unprotected locations.

Temprite Instantaneous Combination Cooler and Carbonator Unit is also available where both cooling and carbonation are required on a single installation. Bulletins available on request.

No Loss of CO₂ gas with NEW TEMPRITE Carbonator

Countless soda fountains and taverns have been operating for years with inadequate or obsolete carbonating equipment. Start to make new profits now in this large market. Tell bar and soda fountain owners about the new Temprite Carbonator that pays for itself in no time at all ... pays for itself because there's no loss of CO₂ gas through vents or purging devices ... making it possible to actually deliver over 5620 glasses of highly carbonated water from a single tank of CO₂ gas.

Easily and inexpensively installed, the Temprite modern packaged carbonator is completely factory assembled, ready for immediate installation and operation. Dimensions of 13" square by 16" in height permit installations in practically any location.

See your local Temprite wholesaler or write for complete details.

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Originators of Instantaneous Liquid Cooling Devices

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NATIONAL CHAMPIONS

Skill and endurance pay off for the Tennis Champion and appearance and construction do the same for National's CHAMPION cooler.



NATIONAL CHAMPIONS

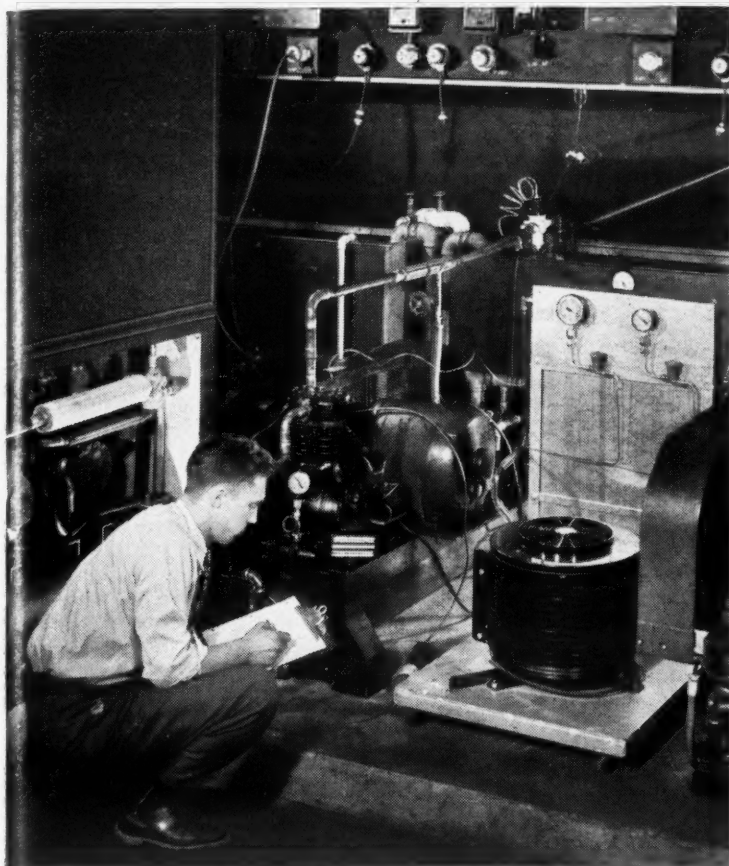
Bullet-like returns and hard serves mark JACK KRAMER as the nation's outstanding Tennis Champion. Superior performance makes the CHAMPION DRY BEVERAGE COOLER an all time winner.

Write today for the new 1949 catalog on National Dry Coolers and Stainless Steel Restaurant Equipment.

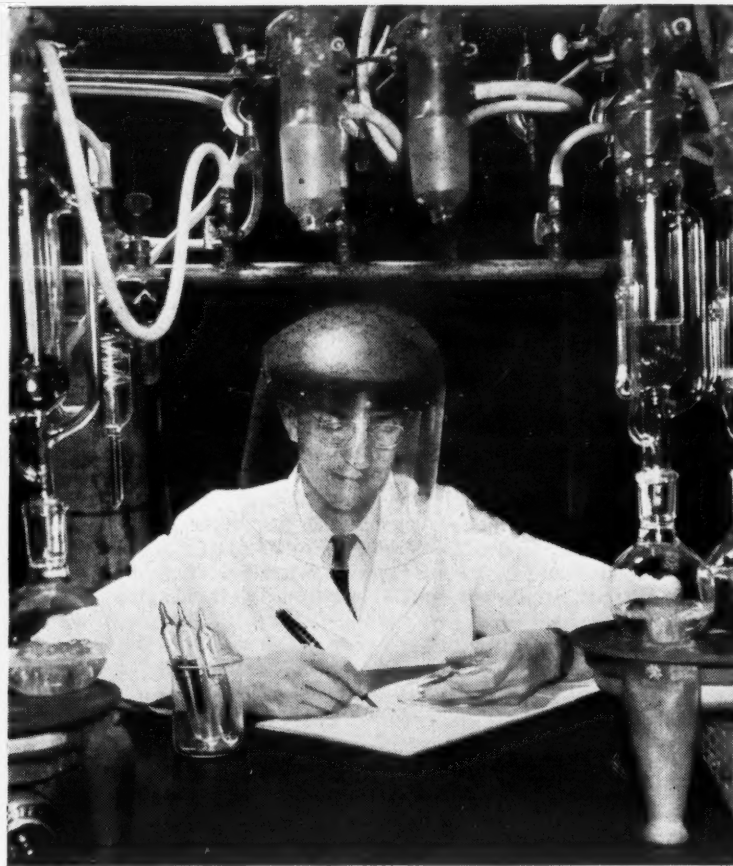
- ALL STAINLESS STEEL EXTERIOR (EXCEPT BACK)
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Manufacturers of Stainless Steel and Metal Restaurant Equipment

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REDUCING YEARS TO DAYS is routine in this life-test room. Here, Frigidaire products can be operated for the equivalent of 15 years in just 60 days, making it possible to eliminate "bugs" before products are marketed.



CHEMICAL RESEARCH is mighty important in designing better products. Here, factors which affect chemical stability of refrigerant circulating systems are studied, helping insure long life for Frigidaire mechanisms.



"CALORIMETER ALLEY" is what Frigidaire engineers call this section of their laboratories. Its special job is to test the cold-making capacity of all Frigidaire compressors under a wide variety of controlled conditions.

WHAT FRIGIDAIRE ENGINEERING LEADERSHIP MEANS TO FRIGIDAIRE COMMERCIAL DEALERS

For over a quarter-century, Frigidaire engineers have been producing one major advancement after another. Advancements like the famous Meter-Miser Compressor, Effectifin Cooling Units, Modulex Expansion Valves, self-contained Store Air Conditioners, All-Steel Ice Cream Cabinets and, in collaboration with General Motors, Freon, the safe refrigerant. As a result, Frigidaire has become world-famous for leadership in engineering and creative research.

That leadership is an important selling advantage to every Frigidaire Commercial Dealer.

But even more important, Frigidaire is constantly seeking to *increase* its leadership. Dedicated to that goal is a team of over 350 engineers, including nationally recognized authorities in nearly every branch of science. At their command are dozens of modern laboratories like those shown on this page... the very latest in engineering equipment... extensive drafting departments

... model shops that are factories in miniature... and the vast facilities of General Motors' Research Laboratories Division. Improvements these men are making and testing today will help Frigidaire Commercial Dealers increase their sales next year—and ten years from now.

That's profit insurance of a mighty practical kind. And it's only one of many ways in which Frigidaire leadership is helping build better business for Frigidaire Commercial Dealers.

BETTER ENGINEERING MEANS BETTER SALES AND PROFIT FIGURES FOR FRIGIDAIRE COMMERCIAL DEALERS



You're twice as sure with two great names

FRIGIDAIRE made only by **GENERAL MOTORS**

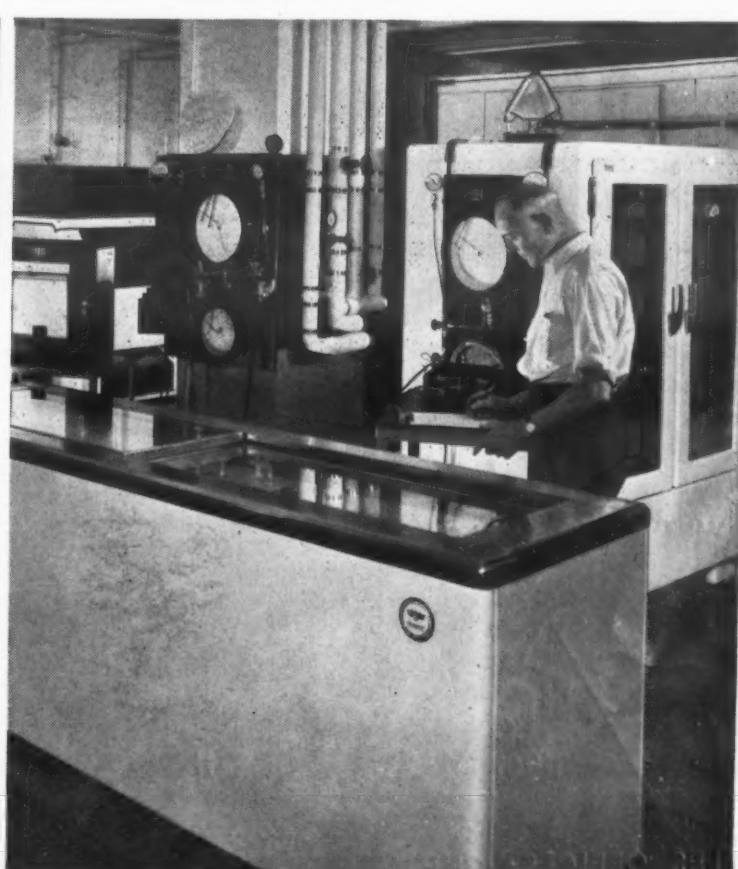
PROPER BEVERAGE COOLING doesn't just happen. In this room, Frigidaire wet and dry beverage coolers are kept under constant temperature and humidity conditions and given exhaustive tests for proper cooling time, power consumption, and adjustment of temperature controls.



EFFICIENCY CAN BE MEASURED — and is — in this water cooler test room in the Frigidaire laboratories. Under varied temperature conditions, all Frigidaire water coolers are thoroughly tested for cooling capacity, low-cost operation, dependability of performance.



WAYS TO IMPROVE construction and design of reach-ins and other fixtures are found in this specially-equipped test room. Effects of various temperature and humidity conditions are measured and permanently recorded by super-sensitive instruments.



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EXPORT DEPARTMENT—Box 218, Ridgefield, New Jersey

Food Freezing Party--

(Concluded from Page 1, Column 4)
ing parties will have an ideal opportunity to tie in the promotion with demonstrations of other appliances. Foods for the demonstrations should be stored in a refrigerator. Other appliances that might be put to use are the Disposall, automatic dishwasher, and electric range. A dealer who merchandises complete kitchens is ideally equipped to handle the freezing demonstration in surroundings that approximate the home-maker's kitchen.

It was suggested that each dealer wherever possible enlist the services of a qualified woman to act as hostess during the demonstration. If the dealer doesn't have his own home economist or can't get one from a local utility company, he should attempt to get a woman who has some familiarity with home food freezing practices.

Dealers were urged to investigate the possibility of obtaining food and packaging material from local sources on a reciprocal promotional basis.

Prospective guests can be contacted by telephone or personal calls by salesmen, or by letters or printed invitations. Guests attending the food freezing party should be registered so that the dealer can follow up the prospect list.

L & H Appoints Thiele

MILWAUKEE—A. J. Lindemann & Hoverson Co., has appointed Joe Thiele, Inc., San Antonio, Texas, as distributor for L & H electric ranges and water heaters in southwest Texas.

Dealers Optimistic on Time Sales Curbs--

(Concluded from Page 1, Column 5)
whole year's financing for them on any terms they want to allow. Those houses can stand a 3 to 5% loss on bad credit where we can't.

"I think those small dealers who started up after the war and made a go of it owe much of their success to the fact that Regulation 'W' was in effect while they were getting their business started.

"This setting of a limit on terms is important right now because banks are getting tougher on time payment financing, and they are disinclined to okay any further purchases where the prospective purchaser has any sizable debts outstanding. We couldn't get a \$250 refrigerator sale financed because the would-be buyer owed \$700 on an automobile that would have brought \$2,000 if the man would have been forced to sell it.

"We don't like to sell anything at less than 20% down, because if an individual has difficulty in scraping together that much for a down payment, he is a poor risk for paying off the balance in most cases.

"How can you afford to deliver a refrigerator for \$10 down, when it will cost \$11 to deliver it and take it back if the deal goes bad?"

Trade-ins are becoming more of a factor in sales, Polster reported, but he has taken very few.

A neighborhood dealer, Gordon J. Agnew of Agnew & Russell Co., looked forward to credit curbs as giving small dealers like himself a chance to compete with larger houses that feature low terms. Small firms, he contended, could not meet low-term competition because their capital structure would not permit them to tie up their money in that way.

At the same time Agnew felt that controls would cut down the volume of business for everybody but, he

felt "that is what the government is trying to do."

Sheldon Shagrin of Shagrin's, a downtown outlet that handled luggage, sporting goods, and other merchandise besides appliances, asserted that credit controls would not affect him at all because he dealt strictly for cash.

However, he expressed the opinion that the controls would not be good. "I guess they (the government) are trying to keep people from going into debt and a lot of other things that they shouldn't be doing."

M. J. Orabella, president of Ohio National Products, Inc., felt that controls "aren't going to be good." He averred that refrigerators would be the hardest hit by them because the people in the market for refrigerators are the very ones who don't have the kind of money that can afford large down payments.

Production Catching Up--

(Concluded from Page 1, Column 2)
below June, 1947, sales. That big drop cut sales for the first six months of 1948 to 270,570 units, barely above the 268,300 ironers sold in first half of 1947."

Kitchen equipment of all kinds, the magazine states, is available in most stores. Gas ranges are being made at the rate of 238,700 a month, "far above prewar output"; electric fans and clocks are plentiful.

The radio industry generally is cutting production from 20,000,000 sets in 1947 to 15,000,000 this year.

"The 1947 output flooded markets, caused a competitive battle. Twenty-seven sets and parts makers failed."

Reciprocal Licensing--

(Concluded from Page 1, Column 3)

"In institutional and public assembly occupancies the return line from air conditioning cooling coils located downstream from and in close proximity to a heating coil or located up-stream within 18 in. of a heating coil shall be fitted with a relief valve set not to exceed the maximum allowable test pressure for the return line and discharging to the outside of the building."

This provision is included to prevent rupture of lines when an air conditioning system is shut down, say for the winter, and refrigerant might possibly get into the lines through leaking shut-off valves, explains the Detroit Bureau of Safety Engineering.

RECO

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NEW DELCO MOTOR

Specially designed for Compressor Service



Delco has always meant the best in motors—and this new Compressor Duty Motor line by Delco represents another outstanding advance in "designed for the job" power units.

Engineered specifically for compressor use, these new Delco Motors are quiet, efficient and free from vibration. New construction techniques insure long, trouble-free operation under the most adverse conditions.

These really new Delco Compressor Duty Motors are available for application to your air conditioning and refrigeration line. For complete data on Delco Motors write to Delco Products, Dayton, Ohio, or call our nearest Sales Office.

CHECK THESE FEATURES OF THE NEW DELCO MOTOR

- ✓ The inner and outer races of the ball bearing on the end opposite the drive end are locked to give maximum thrust capacity.
- ✓ Polyphase motors have double squirrel cage rotors; die cast aluminum conductor bars and end rings.
- ✓ Close tolerance air gap between rotor and stator.
- ✓ Main frames and end frames are of rigid cast iron construction.
- ✓ Extended accessible mounting feet cast as unit with main frame.
- ✓ Single phase available from 1 h.p. through 5 h.p. and polyphase available from 1 h.p. through 7½ h.p. 1800 R.P.M.



DELCO MOTORS

DIVISION OF GENERAL MOTORS CORPORATION, DAYTON, OHIO

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... available for
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YOUR KEY TO BETTER REFRIGERATION

COLDIN CABINET CO., Inc.

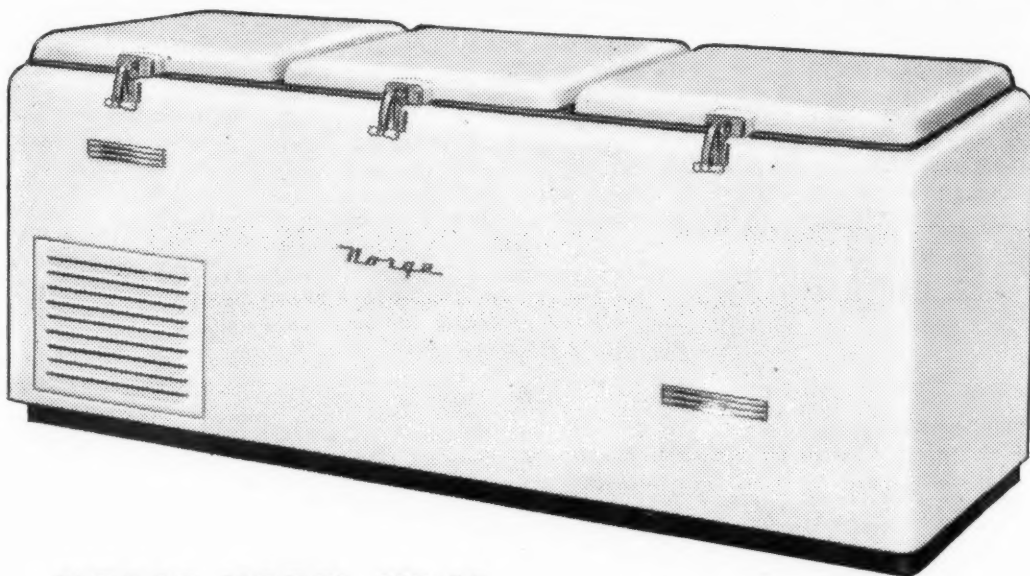
2800 Webster Avenue, Bronx 58, N. Y. Tel. SEdwick 3-5833

FRANCHISES AVAILABLE
WRITE FOR COMPLETE INFORMATION

in home freezers too . . .

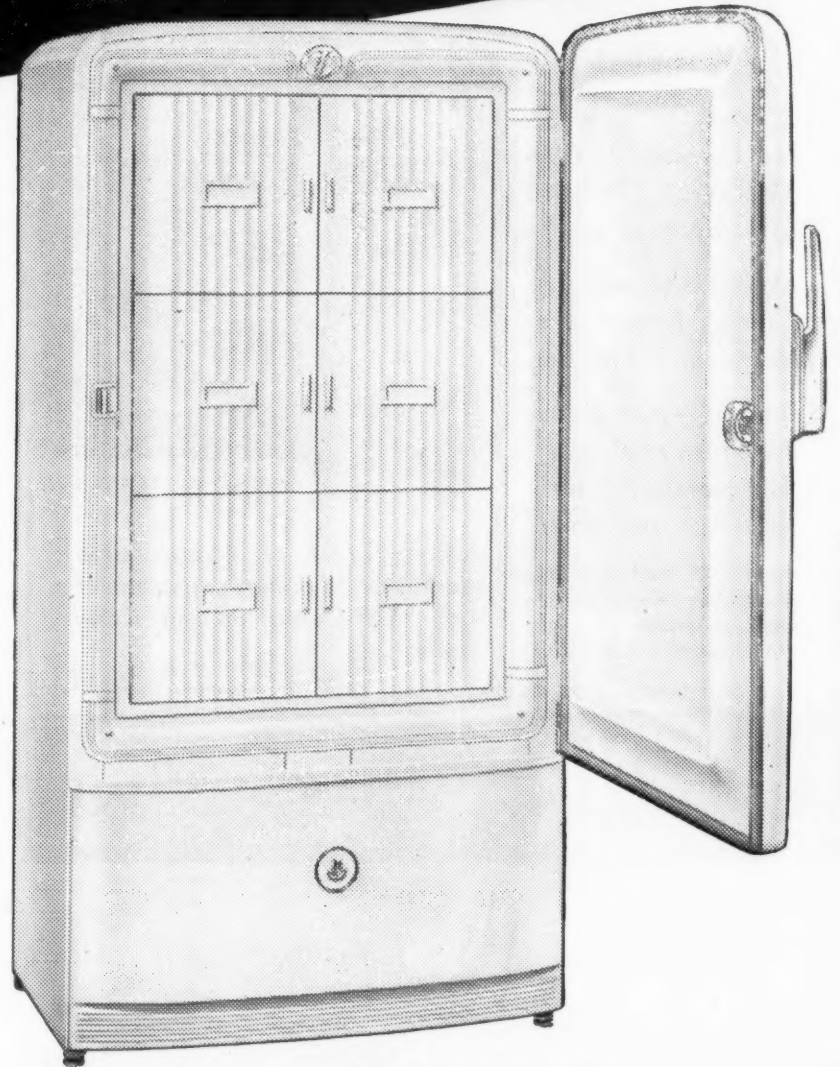
*depend on **NORGE** for the best!*

Norge Home Freezers, like all Norge products, are backed-up by aggressive national advertising in the country's leading magazines, such as Saturday Evening Post, Ladies' Home Journal, McCall's, Good Housekeeping, Better Homes and Gardens, American Home, Christian Science Monitor, Country Gentleman, Farm Journal, Successful Farming, and others.



NORGE MODEL HF-18

HOME FREEZER has a freezing compartment at the left, with separate lid and two storage compartments at the right. All three lids are counterbalanced, have lock-latch handles. Thick glass fiber insulation. Total storage capacity 18.62 cubic feet or approximately 650 pounds of food. Powered by 1/3 h.p. open-type "Rollator" cold-maker.

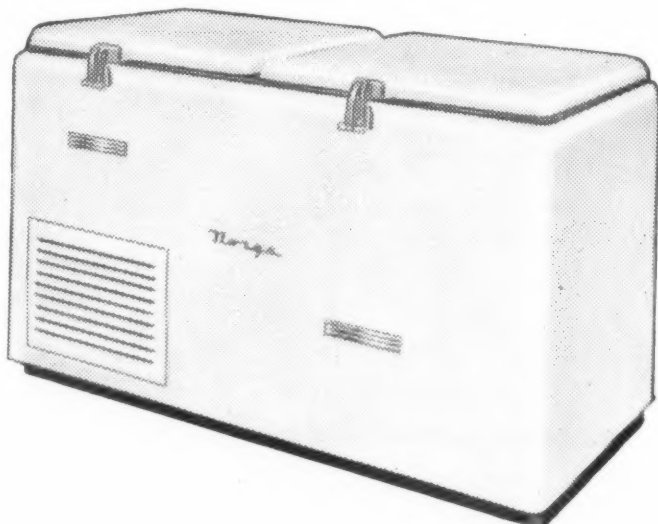


NORGE MODEL HF-6 HOME FREEZER

is a vertical-type freezer. Capacity of 6.35 cubic feet; holds approximately 210 pounds of food. There are six food compartment doors made of white plastic, each with label frame, for identifying the contents. Other features are refrigerated shelves; thick glass fiber insulation; positive-action door latch and a hermetically sealed 1/5 h.p. "Rollator" cold-maker condensing unit.

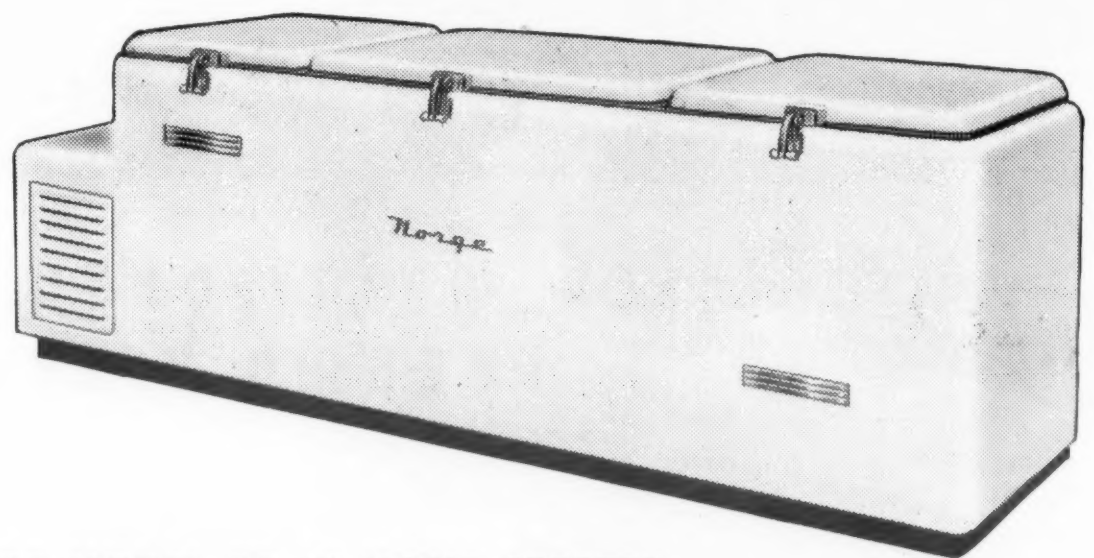
NORGE MODEL HF-26 HOME FREEZER

features full depth freezing compartment of 5.6 cubic feet with a total of 26 cubic feet of freezing and storage capacity or approximately 910 lbs. All of the lids are counter-balanced. The freezer condenser is a 1 1/2 h.p. open-type "Rollator" cold-maker.



NORGE MODEL HF-10 HOME FREEZER

has a total capacity (freezer capacity plus storage capacity) of 10.54 cubic feet, to accommodate approximately 370 pounds of food. This model is noteworthy for its two compartments, each with separate counterbalanced lid; lock-latch handles, five-inch glass fiber insulation, 1/5 h.p. hermetically sealed "Rollator" cold-maker condensing unit, and moderate price.



Norge Division, Borg-Warner Corporation, Detroit 26, Michigan

In Canada: Addison Industries, Ltd., Toronto, Ontario

A BORG-WARNER INDUSTRY

REFRIGERATORS • ELECTRIC RANGES • WATER COOLERS • HOME FREEZERS
WASHERS • ELECTRIC WATER HEATERS • HOME HEATERS • GAS RANGES

SEE
NORGE
BEFORE YOU BUY

"For the HOTTEST DEAL in Town"
Dealers Say It Everywhere
 The Modern • Efficient • Economical

"NAT" SUSPENDED GAS UNIT HEATERS

3 sizes to suit all requirements 75,000-110,000 and 165,000 BTU Capacity.

Available for Natural, Butane, Propane, or Manufactured Gases.

Delivery within 3 days upon receipt of order. Some exclusive territories still available.

Models 75 and 110 approved by the American Gas Association.
 ESTABLISHED SINCE 1929



Manufacturers of combination heating and cooling units, and the NAT "Self-Contained Air Conditioning unit."

WRITE, WIRE OR PHONE FOR FULL INFORMATION

THE NAT CORPORATION
 2710 McGee Trafficway Kansas City 8, Mo.

RX-1 Air Conditioner

Using Doctors To Help Sell Air Conditioning Units Is Just One Idea That Has Paid Dividends to Frank Berger

PHILADELPHIA — "I have over 25 salesmen selling air conditioning units for us that are not on our payroll," says Frank L. Berger, Berger Air Conditioning here, "and each one has been sending us customers year after year."

"These unpaid salesmen are doctors. Doctors to whom we have already sold air conditioning units for their homes or offices."

"Here is the way it works. Every time we sell an air conditioning unit to a doctor, we ask him to recommend any of his patients to us who are interested in buying air conditioning units for their homes or offices because they are suffering from hay fever or an asthma condition."

"Many doctors recommend air conditioning for these suffering patients and we have sold hundreds of units as a result of these 'salesmen.'"

A Customer Started It

It all started when a customer bought an air conditioning unit from Berger sometime ago, saying that he had been told to buy one on his doctor's recommendation. Berger asked the customer for the doctor's name to call him and thank him for the customer.

When the doctor was called, Berger was told that he recommended air conditioning units to many of his patients although he didn't specify

that they buy their units from any particular dealer, but that if he was asked, he would tell them that they could purchase one from him. This conversation resulted in the sale of an air conditioning unit to the doctor himself after the discussion.

Following this conversation, Berger checked his books for all the doctors to whom he had sold air conditioning units or other electrical appliances. He then phoned them and to others paid personal calls, asking them to recommend patients to him for whom he recommended air conditioning units to relieve them.

"Although doctors can't recommend definite purchases, as it's against their policy to sell," says Berger, "they can still mention an air conditioning company to a questioning patient or can tell others that they bought their own from us."

Following these calls, Berger prepared a mailing piece advertising air conditioning units for doctor's homes and offices. After these direct mail pieces, he sent doctors mailing literature on air conditioning units that could be used by their patients in homes and offices.

Then he followed it up by a "remembrance campaign." He mailed out blotters to doctors, desk weights, and other novelties. His newspaper advertising was directed to hay fever and asthma sufferers. This advertising however is seasonal, when it affects individuals. His other advertising on a year-round basis.

To show customers how air conditioning can relieve them from heat as well as these health conditions, Berger has installed an air conditioning unit in his store office.

Feel the Difference

"When customers come to us, he says, 'we take them into our office where they can enjoy the comforts of our air conditioning unit. Then we walk around the showroom. While our show room is air conditioned, we keep it just slightly more comfortable than the outside. The lower temperature is in the office. Customers can therefore enjoy store comfort but can tell decidedly the difference between the office and store.'"

After customers are shown the units in the store, Berger takes them back to the office, where he discusses the purchase of one.

Berger Air Conditioning offers customers a year-round service. This includes removing air conditioners from rooms and windows after the season, storing them, inspecting and oiling them, and finally replacing them at the beginning of the next season.

"Many of our customers live in hotels and apartment houses," points out Berger, "and after they have been used for the season they like to

have them taken out and stored somewhere. We do just that."

Apartment houses and hotels are canvassed for people using air conditioners and out-of-season storage discussed. Storage charges can be paid monthly or when the unit is installed again. There is a separate charge for taking out the unit, installing it, and storing. All these charges are combined and reduced, if a customer desires them.

Servicing, Storing Bring Profits

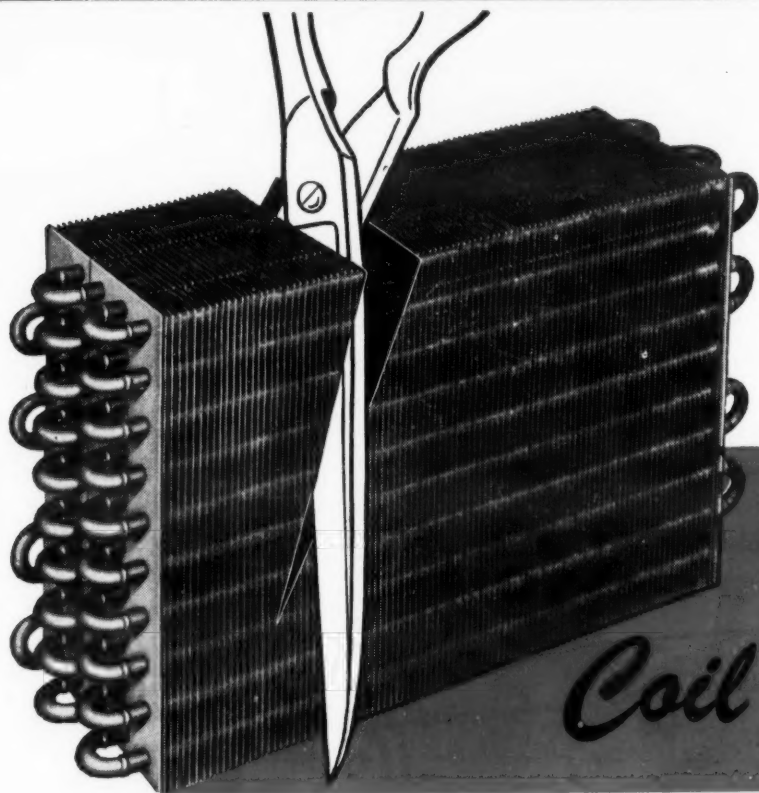
As for overhauling and inspection, this is done at the owner's approval, otherwise the unit is just stored. When it is noticed that a certain unit isn't functioning properly and repairs would be costly, Berger tries to suggest a new one to the owner, taking the old one in for an allowance.

"At the present time," adds Berger, "we are servicing and storing about 1,500 units. This is highly profitable business and is the source of more sales for us."

Whenever units are replaced in an apartment house or hotel, other residents see it or are canvassed, with a result of possible sales to others.

"Selling air conditioning units is chain-like," says Berger, "and one customer should be used as a stepping stone to another. There isn't anything better than having a satisfied user tell another how much air conditioning is enjoyed by them."

"All we do, is tell a new canvassed customer to question an old user in that apartment house about air conditioning, and if that is done, a new sale is practically assured."



**DON'T CUT
Coil Capacity**

Install

ALCO MULTI-OUTLET THERMO VALVES

Faulty feed that "starves" several circuits often cuts coil capacity $\frac{1}{3}$ to $\frac{1}{2}$. Stop this costly waste with ALCO Multi-Outlet Thermo Valves. They assure:

- The refrigerant liquid is accurately metered at the point of expansion to all coil circuits
- Even distribution regardless of load changes
- Full rated coil capacity—no underfed circuits
- Positive, accurate control—no "hunting" or "cycling"
- Less running time—substantial savings in operating costs

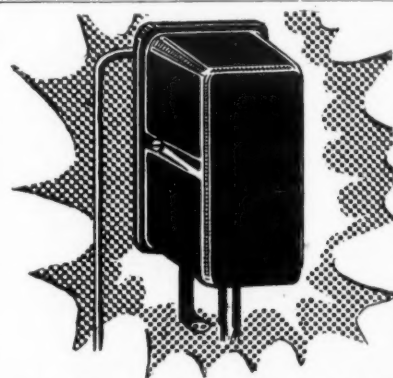
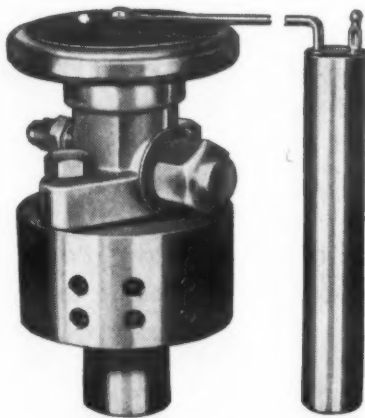
Available at your wholesaler's for all refrigerants and applications: $\frac{1}{2}$ to 50 tons FREON-12, 2 to 36 outlets. Ask for our Bulletin 180.



ALCO VALVE CO.

853 KINGSLAND AVE. • ST. LOUIS 5, MO.

Designers and Manufacturers of Thermostatic Expansion Valves; Evaporator Pressure Regulators; Solenoid Valves; Float Valves; Float Switches.



The New McCary Signal Light Prevents Refrigeration Losses

- Any temperature variations above normal in any type of refrigerator are immediately signalled with a bright red light by this fool-proof, inexpensive instrument. Prompt warning prevents spoilage of refrigerated products. Easily installed anywhere, operates between -10° and $+60^{\circ}$. Write for free McCary Temperature Signal Light literature. Some distributorships still open.

MCCARY MANUFACTURING CO.
 2823 Mobile Street El Paso, Texas



FEDERAL MODEL 1089

NEW Federal Self-Serve Reach-In gives you most display for your money . . . 94 $\frac{1}{2}$ sq. ft.

Here's eye-appeal for streamlined selling! Easy working rubber doors, fluorescent lighting, metal clad baked enamel exterior. . . Uses small space for large display, for dairy products, bottled goods, and all kinds of produce.

FEDERAL REFRIGERATOR MFG. CO.

WAUKESHA • WISCONSIN

ASK ABOUT DESIRABLE TERRITORIES STILL AVAILABLE

WRITE FOR DETAILS

**Results
COUNT**

**MORE PRODUCTS
ON DISPLAY
MEAN GREATER
SALES**

Federal

Dallas of Revere Hits Copper Stockpiling By Gov't Agencies

WASHINGTON, D. C.—To avoid dislocation of civilian economy, the government should stockpile brass instead of copper for war emergencies, contends C. Donald Dallas, chairman of the board of Revere Copper & Brass Corp.

Heavy stockpiling of refined copper will result in inflationary price increases and repercussions in world markets, Dallas declared in a letter to the Munitions Board.

"Our domestic industry has been kept supplied only because it has been possible to import duty-free copper at approximately 400,000 tons a year," wrote Dallas.

"There is no prospect of an increase in either domestic or overseas copper production at the mines which would enable a major stockpiling program to be accomplished quickly without serious repercussions in the world market for the metal."

Dallas even questioned whether copper stockpiling was necessary.

"In war the greatest volume of need for copper is in making brass cartridge cases—brass being copper plus zinc. In the event of another war, there will be another tremendous need for brass for cartridges."

"I submit that the way to meet this prospective need is to stockpile brass, which I am sure can be done in considerable quantity without setting government in competition for the available refined copper. The reason for this is that the government itself is the largest available source of brass scrap."

The government should check its own brass scrap sources, suggested Dallas, predicting that it would be "of very impressive proportions."

'Recol'd' Signs Baker To License Agreement On Water Defrost

LOS ANGELES—A license agreement between "Recol'd" and Baker Ice Machine Co., Inc. of South Windham, Me., and the Northwest Baker Ice Machine Co., Inc. of Seattle, Wash., has just been consummated, according to Hy Jarvis, vice president and general manager of Refrigeration Engineering, Inc. here, holder of the patent covering Water Defrost Coils.

Under the license agreement, which is identical with other license agreements already granted to nine other manufacturers in the United States, Baker will be permitted to manufacture Water Defrost Coils under their own name.

The Water Defrost Coil was developed by Refrigeration Engineering, Inc. in 1938, and in 1940 a patent covering the development was granted by the United States Patent Office. This patent was recently upheld by a U. S. Appeals Court.

L. & P. Electric of N.Y. Named To Distribute Fedders Room Coolers

BUFFALO—Fedders-Quigan Corp., through E. M. Becker, regional sales manager, announces the appointment of the L. & P. Electric Co., 684 Bedford Ave., Brooklyn, as exclusive distributor for Fedders room air conditioner in New York City, Brooklyn, Queens, the Bronx, Westchester, Nassau, and Suffolk counties.

The L. & P. Electric Co. succeeds the D. W. May Co. whose Fedders distributorship will now be concentrated in New Jersey.

The appointment culminates over 25 years of close personal relationship between Frank J. Quigan, chairman of the board at Fedders-Quigan, and Louis Lidsky, president of L. & P. Electric Co. The two executives first tackled a joint problem during 1922.

Plans to aid dealers in selling, installing, and servicing Fedders room air conditioners have already gone into operation. In fact, it is the

announced intention of the L. & P. Electric Co. to provide storage, installation, and servicing facilities themselves for dealers who lack these facilities.

Presenting currently a window-type room air conditioner in ½ and ¾-hp. sizes, Fedders officials have stated that console models will soon be available.

Jack Cherry Directs Philco Service Sales

PHILADELPHIA—Jack Cherry, who has been with Philco for 14 years, has been appointed sales manager of the company's service and parts division.

Cherry became a field service engineer for Philco in 1939. Last year he was named to the position of field service supervisor for the company, with headquarters in Philadelphia and the responsibility for supervising the activities of all district representatives handling sales of accessories. His success in this position has led to his new position as sales manager of the service and parts division.

Price Is Manager of Penn Switch N.Y. Office

NEW YORK CITY—E. A. Price has been appointed manager of the New York district office for Penn Electric Switch Co. according to an announcement by R. H. Luscombe, general sales manager of the company. He succeeds N. E. Jennison who resigned to enter the wholesale refrigeration business.

Price was formerly manager of the company's Dayton, Ohio and Dallas, Texas districts, and has spent approximately 12 years with Penn Electric Switch Co.

Refrigerator Tax Made Big Gain In 12 Months

WASHINGTON, D. C.—A summary of internal revenue collections shows that excise taxes on refrigerators and self-contained air conditioners produced the following revenue:

Year ended	
June 30, 1947.....	\$37,352,386
Year ended	
June 30, 1948.....	\$58,473,372

SHORTAGE OF "FREON" ELIMINATED

As New Plant Increases Production

Production of "Freon" safe refrigerants and propellants at the new Kinetic plant increases the supply approximately sixty per cent. This means that now there is plenty of "Freon" for every need. Users no longer have any reason for stockpiling and thereby delaying the return of cylinders required for shipping.

The continued increase in the demand for "Freon" illustrates both an existing and growing preference for these superior refrigerants. Today, they are used by all the best-known refrigerating equipment and insecticidal aerosol manufacturers in the United States.

The uniform purity and quality of "Freon"... and the amazing dryness of these refrigerants (less than 10 parts of moisture in a million parts of "Freon")... help insure the long life and satisfactory operation of modern, compact refrigeration equipment.

In addition, because "Freon" refrigerants are nontoxic, nonflammable and nonexplosive, they are ideal for every type of commercial, industrial, and household refrigerating and air conditioning requirement. That is why—today—more and more buyers of equipment safeguard their investment by making sure that the installation is designed to utilize "Freon" safe refrigerants. Kinetic Chemicals, Inc., Tenth and Market Streets, Wilmington 98, Delaware.

The need is still urgent for empty cylinders. Please return empties promptly.



View of the new Kinetic plant in East Chicago, Ind. Here, elaborate equipment installations, technical skill, engineering "know how," and laboratory control of the "Freon" syntheses combine to produce ample "Freon" for every user.

WILSON REFRIGERATION, INC.

- FARM AND HOME FREEZERS
- REACH-IN REFRIGERATORS
- WALK-IN REFRIGERATORS
- FARM MILK COOLERS

DIVISION OF WILSON CABINET CO., INC.
SMYRNA, DELAWARE

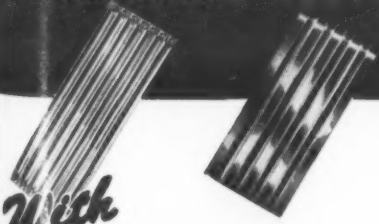
insist on genuine

Marlo

products

MARLO-HEAT TRANSFER
Since 1925

Cut your PRODUCTION COSTS



WEICK GREENE MOULDING ASSEMBLIES

If you are using plated castings or one-piece stampings for grille work, louvers, decorative trim, etc., Greene Moulding Assemblies can mean real savings for you. With them you get

- Lower cost per unit
- Equal or greater strength
- Reduced weight
- Economical repair or replacement
- High quality appearance

CLIP AND MAIL TODAY

Greene Manufacturing Co., Inc.
1028 Douglas Ave., RACINE, WISCONSIN
☐ Please supply me with complete information on savings possible with Greene Moulding Assemblies
☐ I am attaching blue prints and specifications for quotes

NAME
TITLE
COMPANY
CITY STATE

Sanitary Quickfreez



TRIZONE

For Every Food Keeping Need

4.5 cu. ft. of normal refrigerator operating at 40° Ave. with 6.25 cu. ft. of zero frozen storage for 250-300 lbs. of meat. 48½"Wx28"Dx40¾"H. No. C-1148 **\$399.50**

SANITARY REFRIGERATOR CO.
FOND DU LAC, WISCONSIN
Manufacturers of
Quality Refrigerators for Over 40 Years
QUICKFREEZ Farm Locker Plants Since 1939

Wholesaler Installs Conveyor System To Carry Appliances from Loading Dock to Final Storage

CLEVELAND—The Arnold Wholesale Corp., wholesale distributor of major appliances here, recently completed the installation of a system of mechanized belt and roller type conveyors in their warehouse.

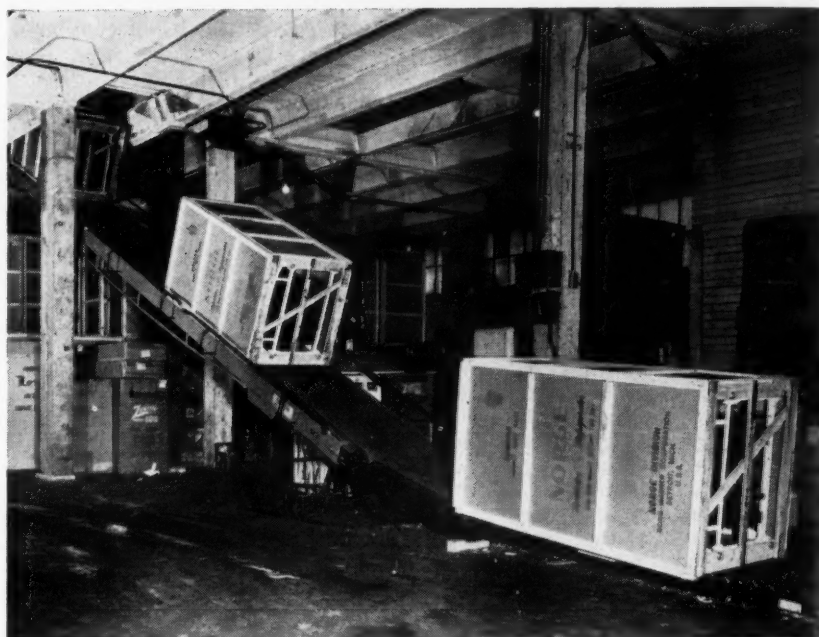
It has proved very helpful in solving many of the problems presented by heavy and bulky appliances, officials of the company declare.

Averaging from 300 to 500 pounds, such material has always involved much time and labor in storage and shipping. Refrigerators and ranges are heavy and unwieldy, and yet extreme care must be given them in handling to prevent their being scratched or the porcelain surfaces damaged. Though lighter in weight, washers, ironers, kitchen cabinets, and sinks present similar problems.

After careful analysis, a completely engineered system of conveyors was installed.

For ease in handling, 5-ft. lengths of 24-in. width roller conveyors were selected. These are used in conjunction with 45° and 90° curved sections. They are placed directly on the floor without additional supports.

Appliances move on the rollers from the receiving dock to the permanent floor to floor belt conveyors, either to second floor or basement storage areas where they again continue by the portable floor conveyors to final storage space. The process is reversed to deliver them to the truck loading dock.

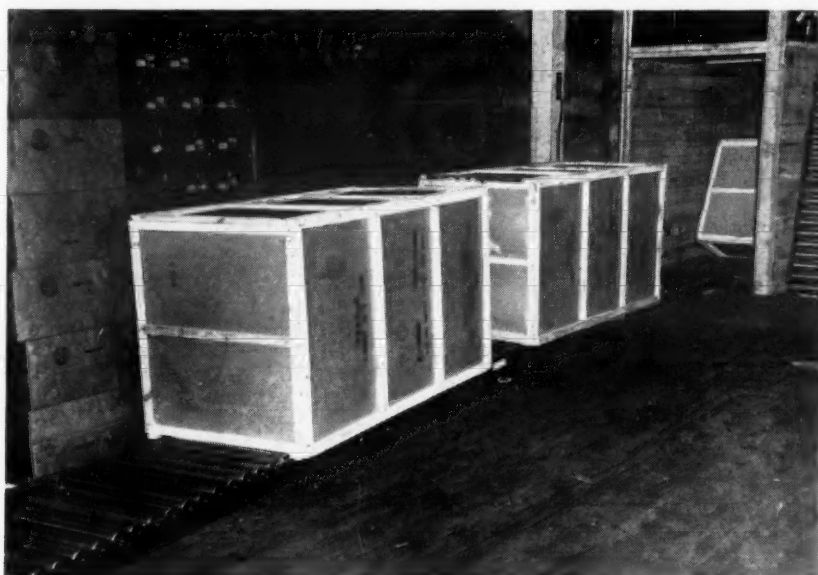


Refrigerators move upstairs at Arnold's warehouse by conveyor. . . .

The benefits of the system are enumerated as follows: Damage to goods is eliminated. Much time and effort is saved. Possibility of injuries to employees is greatly reduced, since hand injuries and strains from lifting can now be avoided. Housekeeping


is much improved. Goods are received in A-1 condition, and deliveries are faster.

It is estimated that the cost reductions achieved will pay for the installation of the conveyors in six months.



Arriving there without damage to themselves or injury to employees.

Bonderized,
painted



Plain Metal,
painted



NOW YOU SEE . . .

. . . why Bonderizing is used to anchor the paint on the finest refrigerators. The scratch test—most dramatic test for paint adhesion—shows how Bonderizing anchors that fine paint finish for years of service in your customers' homes.

PARKER

PARKER RUST PROOF COMPANY
3170 East Milwaukee Ave.
Detroit 11, Michigan

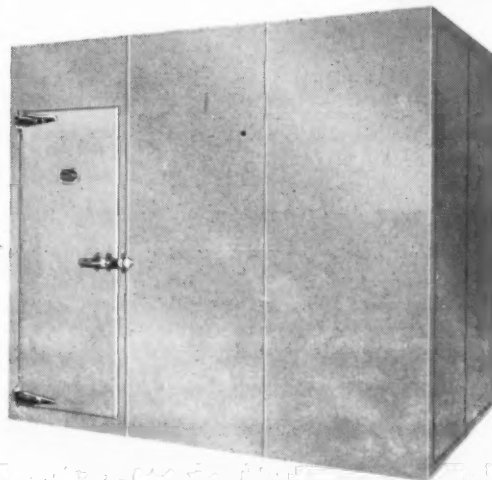
BONDERIZING Holds Paint to Metal . . . PARKERIZING Inhibits Rust . . . PARCO LUBRIZING Retards Wear on Friction Surfaces

Gloekler

Model 2 FDI
25 Cubic Foot

Model 2 FDF (Blower)
Also Available

Reach-In refrigerators
from 20 to 45 cu. ft. with
either blower or ice cube
maker coil.



Model 6-9
ADD-TO
Storage
Refrigerator

Special sizes of Storage
Refrigerators now available.

Several territories
still available - Write
for details.

Gloekler REFRIGERATOR COMPANY
ERIE • PENNSYLVANIA

INSIDE DOPE

by GEORGE F. TAUBENECK

(Concluded from Page 1, Column 1)
giving the state and federal governments increased power to interview strikes, and "removing some of the loopholes."

Other comments recorded: "The act should cover the railroad unions." "People shouldn't have to say whether they are communists or not." "It should not allow strikes in vital industries."

Well, the People Have Spoken. So far as we can ascertain, the Taft-Hartley Act is here to stay.

The Freezer Controversy

Because the Editor of AIR CONDITIONING & REFRIGERATION NEWS honestly believes that the potential market for home and farm freezers is "out of this world," during the past year NEWS editorials have gone all-out to persuade subscribers that they ought to get in on the ground floor of this lusty infant industry.

However, when the Editor of the NEWS temporarily ran out of ammunition for this heart-and-soul editorial crusade, he called upon other freezer enthusiasts to contribute "guest editorials" on this subject. And they have responded heartily.

Every one of these "guest freezer editorials," without exception, has been reprinted and redistributed—often in staggeringly huge quantities—by dealers and distributors throughout the nation.

Consequently—thanks in part to this editorial crusade on the part of the NEWS—a new home appliance—which seemed to be dying in the incubator during the summer of 1947—now is well on the road to major stature. Most directors and promoters of home-and-farm freezer sales give considerable credit to the NEWS for reviving this incubator baby.

Even so, there remain plenty of die-hard critics—both of our pioneering editorial crusade, and of the freezer itself. For example, this letter:

Stewart Ice Machine Co.
Pomona, California

Editor:

"I have just finished reading, for the second time, the editorial by Mr. R. L. Tyler in the July 5th edition of AIR CONDITIONING & REFRIGERATION NEWS.

"I feel qualified to comment on the

problems of Mr. Tyler, and for that matter most of the HOME FREEZER manufacturers, for I am the sole owner of two small successful businesses, one of which dates back to 1920. The other is a frozen food locker plant with 900 lockers.

"I am also President of the California Refrigerated Locker Association. I have been identified with the frozen food industry since in 1933 when we shipped the first of many units into the state of Washington for installation in locker plants by a firm in Spokane. My own locker plant operations date back to a few weeks before Pearl Harbor when I had one. In 1943 I built the second plant which I operate with the aid of my good wife.

"In our locker plant operations we not only stock meats and all kinds of frozen foods, we also stock two popular makes of home freezers, for sale to our patrons.

"In my official capacity as President of the California Refrigerated Locker Association I have sponsored and attended many group meetings, throughout the state, of locker operators. We have 519 Locker Plants in this state. We maintain a full time secretary with headquarters in Fresno. At these meetings we make every effort to learn the problems of the operators and canvass every avenue of profit that may be available. This naturally has led possibly 15 to 20% of the operators to add to their operations, Home Freezers. However, I doubt if there are but few locker operators throughout the nation who have not had complaints regarding the Home Freezer which is traceable right back to the manufacturer.

"It is not an uncommon occurrence for the locker plant operator to find some person waiting when the plant is opened in the morning, or to come in during the day, with his precious food products half thawed out and with the quarter of beef he bought from a retail market practically spoiled, simply because he was told that he could freeze it in his home freezer.

"The manufacturer who permits his sales department to mislead the public to the extent which is being done in the Home Freezer field will, in my opinion, see the day when he cannot give away a dollar, let alone a five cent piece.

"Turn to the specifications of Home Freezers recently published in your valuable publication and just examine the claims of the various manufacturers on the amount of product that can be frozen in twenty-four hours. One manufacturer claims his six cubic foot Home Freezer will hold 274 lbs. He also claims that it will freeze 274 lbs. in twenty-four

hours. Now this could be a mistake on the part of the engineering department of that manufacturer, or in the print shop. But look at the wild claims of many others as to the freezing capacity and one begins to wonder as to what kind of engineering talent these manufacturers employ. Possibly their sales talent is equally off the beam.

"It is very easy to sit in an air conditioned office and find fault with the appliance dealers. It is a different story though when you get out on the floor, or out on your two flat feet trying to explain a way why so and so lost a pig; a quarter of beef or a bushel of fruit because they were led to believe that they could freeze it in the new home freezer. The failures are talked over at every dinner table and at every sewing bee. The payoff is the many back rooms that are filled with home freezers that are forced on to dealers who are required to take them; a couple garbage disposal units, and some laundry equipment which the dealer cannot use, in order to get a few kitchen refrigerators.

"In California we have one locker operator who has sold over 300 home freezers, and many others who have sold considerable numbers, but they were careful to explain the limits of these utilities. Sold this way they make friends and boosters.

"There is nothing wrong with home freezers except the name FREEZER. And an honest explanation of the limits of its capacity will result in far more sales than the manufacturers are now making. Another very important point, as every food processor knows, is the importance of having food products processed in a plant with skilled help and then

packaged in the best packaging material available. It is very doubtful if the owner of a home freezer who processes and packages their product can show any savings at all. The chances are that they cannot. Without proper facilities and packaging materials the health of the family can very easily be impaired than improved.

"If I were to build and market such a facility, I would NOT call it a home freezer. I would not lead the purchaser to believe that he, or she, could process and freeze their product. Sure, you can freeze a few pounds, but what have you got? You do not freeze ice cream in an ice cream cabinet. And you simply cannot quick freeze in a home freezer.

"Now I'm sure that you have a lot of readers who will disagree in every respect with this honest effort to help the manufacturers of home freezers, if they want to call them that, but the simple fact is that they are not going over in anywhere near the volume they should—if they were advertised and promoted right. The dealers are not dead on their fannies. They just haven't been told what to do.

"The trouble is in the top spot at the factory where policy is made. Dealers are hungry for profits, but why beat your brains out waiting for the factory management to get hep?"

M. L. STEWART

Answer:

Subscriber Stewart is a chronic critic of manufacturers and of "big business" in general, as long-time readers of the NEWS may recall. But he does have a point: Freezers

can be oversold by poorly informed dealers.

"Dope" has two small, inexpensive freezers in the basement of his home. In these freezers we have quick-frozen and stored satisfactorily every type of meat, fish, fowl, baked goods (including grandmother's super-special Viennese pancakes and Aunt Hester's angel-food cake) along with pet desserts which our family desires and cherishes.

In so doing we have saved plenty of money, a grand amount of time and, as the Philco advertisements say, have discovered "a new way of living."

However, "Dope" realizes that this satisfactory experience—although it is corroborated by every freezer owner he has ever met—may not be typical.

Subscriber Stewart who, like Harold Ickes, is an "Old Curmudgeon" where manufacturers and Big Business are concerned, probably has a point: Freezer potentialities can be oversold by the underinformed.

He also makes another valid point: before the Freezer business can attain its deserved stature, it must be sold to the now-skeptical best dealers (all of whom are "small businessmen") through honest advertising and promotion.

Thoughts for Today

"We are frightened at uncertainties, just as if they were certain."—Seneca.

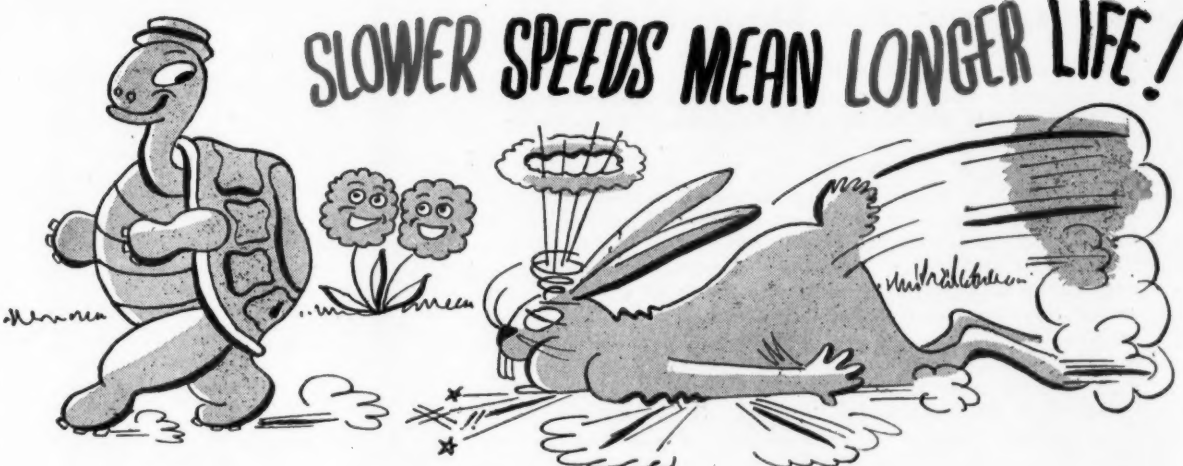
Britain's Labor Government announces that it will establish capital punishment.

English capitalists were afraid that would happen.

BRUNNER
SINCE 1906

REFRIGERATION helps you serve better

Memo to Shrewd Business Men



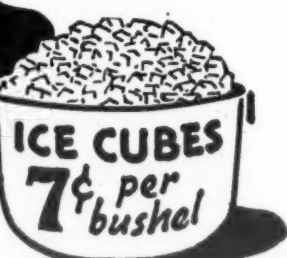
No fairy tale this: you use refrigeration units in your business only because they are essential to a profitable operation. Pump speeds, condenser tubes, suction areas, and other technical contributions to "slower speeds mean longer life" we'll leave to Brunner's factory representative to explain in detail.

Here is today's version: refrigeration units are too important for hurried selection. Slow up, take time to compare design and construction details. Check the experience of other users. Longer life comes with profitable, worry-free installations; prompt deliveries; long-lasting customer satisfaction. Write us. Spend a few minutes with Brunner's representative and know why plant capacities have been greatly increased.

BRUNNER MANUFACTURING CO.
Utica 1, New York, U. S. A.

THE ECONOMY ANGLE ALONE
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Dealers!
Here's an immediate
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NORTHWEST ICE CUBE MAKER

Sell it to quantity users of ice cubes: Restaurants, Institutions, Bars, Clubs, etc.

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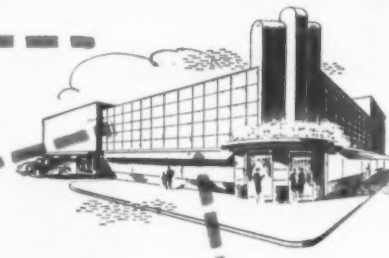
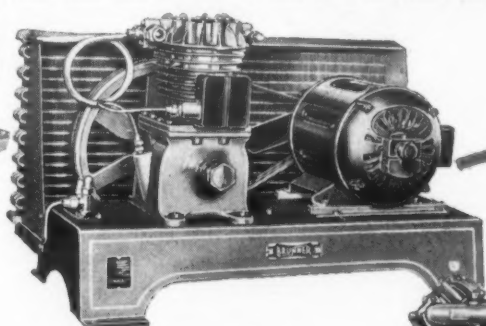
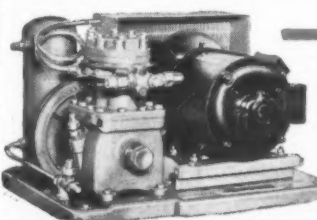
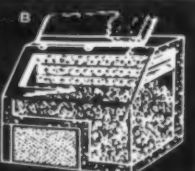
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- Automatic Cube Ejectors
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**NORTHWEST
EQUIPMENT CO.**

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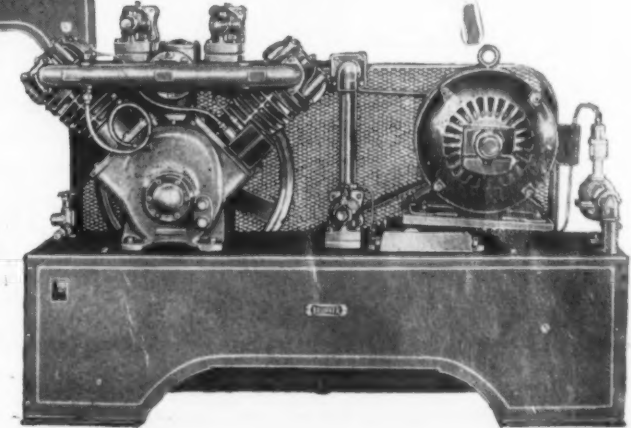
SELL THEM SINGLY OR IN MULTIPLE UNITS

- A 1 1/2 Bushel Storage Capacity (600 Cubes)
3 tiers—15 trays—210 cubes each freeze
- B 3—Bushel Storage Capacity (1200 Cubes)
3 tiers—15 trays—210 cubes each freeze
3 tiers—24 trays—336 cubes each freeze
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AIR AND WATER COOLED MODELS
1/4 HP. TO 25 HP.



Text of New Regulation W

BANKING

Chapter II—Federal Reserve System

[Regulation W]

PART 222—CONSUMER INSTALMENT CREDIT¹

1. This Part 222 is issued to be effective on and after Sept. 20, 1948, in the form as follows:²

- 222.1 Scope and application of part.
222.2 General requirements and registration.
222.3 Instalment sales: general rules.
222.4 Instalment loans: general rules.
222.5 Renewals, revisions, and additions.
222.6 Certain technical provisions.
222.7 Exempt credits.
222.8 Miscellaneous provisions: definitions.
222.9 Supplement.

§ 222.1 Scope and application of part. This part is issued by the Board of Governors of the Federal Reserve System (hereinafter called the "Board") under authority of section 5 (b) of the act of Oct. 6, 1917, as amended, Executive Order No. 8843, dated Aug. 9, 1941 (hereinafter called the "Executive order"), and Public Law 905, approved Aug. 16, 1948.

The part applies, in general, to any person who is engaged in the business of making extensions of instalment credit in amounts of \$5,000 or less, or discounting or purchasing obligations arising out of such extensions of credit. It applies whether the person is a bank, loan company, or finance company, or a person who is so engaged in connection with any other business, such as by making such extensions of credit as a dealer, retailer, or other person in connection with the selling of consumers' durable goods.

§ 222.2 General requirements and registration—(a) General requirements. Each person engaged in the business of making

instalment sales³ or instalment loans⁴ or engaged in the business of lending on the security of or discounting or purchasing obligations arising out of such extensions of credit, is referred to in this part as a "Registrant"; and no Registrant shall make or receive any payment which constitutes or arises directly or indirectly out of any such extension of credit made by him or out of any such obligation lent on or discounted or purchased by him, except on the following conditions:

(1) He must have a license, and each Registrant is hereby granted such a license, but such license of a Registrant may be suspended in the manner and on the grounds stated in § 222.8 (b); and

(2) The extension of credit made, renewed, revised or consolidated by him, or giving rise to the obligation discounted or purchased by him or acquired by him as collateral, must comply with the applicable requirements of this part.

(b) Registration. Within 60 days after the effective date of this part, or 60 days after he becomes subject to § 222.2 (a), whichever is later, each Registrant shall file, with the Federal Reserve Bank or any branch thereof in the district in which the main office of the Registrant is located, a registration statement on a form obtainable from any Federal Reserve Bank or branch. Such statement shall be filed regardless of whether or not the Registrant had filed such a statement under Part 222 as in effect prior to Nov. 1, 1947.

§ 222.3 Instalment sales; general rules. Except as otherwise permitted by this part, each instalment sale shall comply with the following requirements:

(a) Down payment and maturity. There shall be a down payment not less than that specified for the listed article in § 222.9, such down payment to be calculated as therein specified; and the

"It is to be noted that "instalment sale" is defined to include only instalment credit arising out of the sale of an article listed in § 222.9, hereinafter called a "listed article."

"Both "instalment sale" and "instalment loan" are defined to exclude credits in a principal amount exceeding \$5,000.

Many readers of the NEWS will be interested in complete details of the new Regulation W which becomes effective Sept. 20, so the full text of this regulation is being published on this and the following page. Major points of the credit rules, which require 20% down and 15 months to pay on major appliances, appeared in last week's issue.

Attention is also called to proposed amendments to the regulation, published on the opposite page.

maturity shall not exceed that specified for the listed article in § 222.9.

(b) Amounts and intervals of instalments. Except as permitted by § 222.6 (a) for seasonal incomes, the time balance shall be payable in instalments which shall be (1) substantially equal in amount or so arranged that no instalment is substantially greater than any preceding instalment, (2) payable at approximately equal intervals not exceeding one month, and (3) not less than \$5.00 per month or \$1.25 per week on the aggregate instalment indebtedness of one debtor to the same creditor.

(c) Statement of transaction. The instalment sale shall be evidenced by a written instrument or record which shall set forth the information specified in § 222.6 (c).

§ 222.4 Instalment loans; general rules. Except as otherwise permitted by this part, each instalment loan shall comply with the following requirements:

(a) Instalment loans to purchase listed articles. If the Registrant knows or has reason to know that the proceeds of an instalment loan are to be used to purchase any listed article:

(1) The principal amount lent (excluding any interest or finance charges and the cost of any insurance) shall not exceed the maximum loan value specified for the article in § 222.9, such loan value to be calculated as therein specified; and

(2) The maturity shall not exceed the maximum maturity specified for the listed article in § 222.9.

(b) Unclassified instalment loans. In the case of an instalment loan which is not subject to section 4 (a), the maximum maturity shall not exceed the maximum maturity specified therefor in § 222.9.

(c) Amounts and intervals of instalments; record. Whether subject to section 4 (a) or section 4 (b), the instalment loan, except as permitted by section 6 (a) for seasonal incomes, shall be payable in instalments which shall be (1) substantially equal in amount or so arranged that no instalment is substantially greater in amount than any preceding instalment, (2) payable at approximately equal intervals not exceeding one month, and (3) not less than \$5.00 per month or \$1.25 per week on the aggregate instalment indebtedness of one debtor to the same creditor. It shall be evidenced by a written instrument or record which shall set forth the terms of payment.

(d) Statement of the borrower. No Registrant shall make any instalment loan subject to § 222.4 (a) or § 222.4 (b) unless he shall have accepted in good faith a signed Statement of the Borrower as to the purposes of the loan. Such Statement shall state whether or not any of the proceeds of the loan are to be used to make a down payment on the purchase of a listed article or to be used to purchase any listed article, and if any of the proceeds of the loan are to be used for the latter purpose such Statement shall identify such listed article and shall state the cash price thereof and the value of any trade-in. If a Registrant relies in good faith on the facts set out by the obligor in such Statement, it shall be deemed to be correct for the purposes of the Registrant.

(e) Loans to make down payments prohibited. A Registrant shall not make any instalment loan if he knows or has reason to know that any part of the proceeds thereof is to be used to make a down payment on the purchase price of any listed article.

§ 222.5 Renewals, revisions and additions—(a) General requirements. In the case of an instalment sale or instalment loan which results from a renewal or revision of any such credit already outstanding, or which results from the combination of any such outstanding credit with an additional extension of instalment credit, the renewed, revised or consolidated obligation shall (regardless of when the outstanding credit originated) comply with all the requirements of this part as if it were a new extension of credit except that:

(1) The requirements as to Statement of Borrower and down payment or maximum loan value, if any, shall not apply to the outstanding credit already held by the Registrant; and

(2) The renewed, revised or consolidated obligation may, in so far as the maturity and instalment requirements are concerned, be treated as if it were a new credit with the maximum maturity calculated from the date of the renewal, revision or consolidation. The payments on such renewed, revised, or consolidated obligation shall not be less than \$5.00 per month or \$1.25 per week on the aggregate instalment indebtedness of one debtor to the same creditor.

(b) Statement of changed conditions. Notwithstanding any other provision of this part, if a Registrant accepts in good faith a Statement of Changed Conditions as provided in the following paragraph, an extension of instalment credit that refinances any outstanding obligation (whether or not such obligation is held by the Registrant or is itself payable in instalments) may have a maturity not exceeding that specified in § 222.9 for refinancing pursuant to such Statements, but such maturity shall be applicable only to the credit refinanced. The payments on the credit refinanced need not be as large as \$5.00 per month or \$1.25 per week.

The requirements of a Statement of Changed Conditions will be complied with only if the Registrant accepts in good faith a written statement signed by the obligor that the contemplated refinancing is necessary in order to avoid undue hardship upon the obligor or his dependents resulting from contingencies that were unforeseen by him at the time of obtaining the original extension of

credit or which were beyond his control, which statement also sets forth briefly the principal facts and circumstances (1) with respect to the original extension of credit and (2) with respect to such contingencies, and specifically states in addition that the contemplated refinancing is not pursuant to a preconceived plan or an intention to evade or circumvent the requirements of this part.

(c) Bona fide collection effort; servicemen's preinduction debt. Nothing in this part shall be construed to prevent any Registrant from making any renewal or revision, or taking any action that he shall deem necessary in good faith (1) for the Registrant's own protection in connection with any obligation which is in default and is the subject of bona fide collection effort by the Registrant, or (2) with respect to any obligation of any member or former member of the armed forces of the United States incurred prior to his induction into such service.

§ 222.6 Certain technical provisions—(a) Special payment schedules for seasonal incomes. If the income received by an obligor from the main sources of his income customarily fluctuates materially from month to month or from season to season, the payment schedule may be adapted, within the applicable maximum maturity, to such customary flow of income, provided the obligation complies with one or the other of the following requirements: (1) At least half of the credit is to be repaid within the first half of the applicable maximum maturity; or (2) payments are reduced or omitted in not more than 4 months of any calendar year but are otherwise in equal monthly amounts. In all such cases, a statement of the facts relied upon shall be preserved in the Registrant's files for the life of the obligation.

(b) Calculating maximum maturity of contract. In calculating the maximum maturity of an instalment sale or instalment loan, a Registrant may, at his option, use any date not more than 15 days subsequent to the actual date of the sale or loan.

(c) Record of instalment sale. The instrument or record evidencing an instalment sale pursuant to § 222.3 (c) shall set forth (in any order) the following information:

(1) A brief description identifying the article purchased;

(2) The cash price of the article;

(3) The amount of the purchaser's down payment (i) in cash and (ii) in goods accepted in trade, together with a brief description identifying such goods and stating the monetary value assigned thereto in good faith;

(4) The amount of any insurance premium for which credit is extended and of any finance charges or interest by way of discount included in the principal amount of the obligation, or the sum of these amounts;

(5) The time balance owed by the purchaser, which is the sum of items (2) and (4) minus item (3); and

(6) The terms of payment.

The instrument or record need not include a description of the article if it is purchased by means of a coupon book or similar medium of instalment credit upon which there has been made a cash down payment at least as great as the highest down payment required by this part on any article sold by the Registrant. The instrument or record need not include the information called for by items (2) and (4) if the Registrant is one who quotes to the public a time price for the article which includes the finance charge if any, provided he sets forth such time price in such instrument or record, and provided he obtains a cash down payment which is at least as large as would be required if the percentage specified for the article in § 222.9 were applicable to the time price.

(d) Extension of credit for mixed purposes. In case an extension of credit is partly subject to one section of this part and partly subject to another section, the amount and terms of such extension of credit shall be such as would result if the credit were divided into two or more parts and each part were treated as if it stood alone. In case an extension of credit is partly subject to this part and partly not subject to the part, the amount and terms of such extension of credit shall be such as would result if the credit were divided and the part subject to the part were treated according to the applicable provisions of the part; the part not subject to the part may be treated as if the part did not exist.

(e) "Lay-away" plans. With respect to any extension of credit involving a bona fide "lay-away" plan, or other similar plan by which a purchaser makes one or more payments on an article before receiving delivery thereof, the Registrant may, for the purposes of this part, treat the extension of credit as not having been made until the date of the delivery of the article to the purchaser.

(f) Mail orders. An instalment sale shall not be deemed to be in violation of the down payment requirement of § 222.3 (a) if the sale is made upon the receipt of a mail order for one or more articles and the cash deposit received with the order falls by less than \$1.00 to equal the sum of the down payments required by this part for all of the articles included in the order.

(g) Delivery in anticipation of instalment sale. In case a listed article is delivered in anticipation of an instalment sale of that article or a similar article (such as a delivery "on approval," on trial," or as a "demonstrator"), the Registrant shall require, at or before the time of such delivery, a deposit equal to the down payment that would be required on such an instalment sale.

(h) Sets and groups of articles. In determining whether an article is a "listed article," the word "article" shall be deemed to include any set, group or assembly commonly considered, sold or used as a single unit, if the component parts thereof are sold or delivered at substantially the same time.

(i) Evasive side agreements. No extension of credit complies with the requirements of the regulation in this part if at the time it is made there is any agreement, arrangement, or understanding (1) by which the obligation is to be renewed or revised on terms which would permit final payment to be deferred beyond the date permitted by this part for such credit at its inception, or (2) by which the obligor is to be enabled to make repayment on conditions inconsistent in any other respect with those required by this part, or (3) by which there is to be any evasion or circumvention, or any concealment of any evasion or circumvention, of any requirement of this part.

(j) Side loan to make down payment. A Registrant shall not make an extension of instalment credit to finance the purchase of any listed article if he knows or has reason to know that there is, or that there is to be, any other extension of credit of any kind in connection with the purchase of the listed article which would bring the total amount of credit extended in connection with such purchase beyond the amount of instalment credit permitted by this part; but, if the Registrant accepts in good faith a written statement signed by the obligor that no such other extension exists or is to be made, such statement shall be deemed to be correct for the purposes of the Registrant.

(k) Purchase of article in lieu of trade-in. Anything which the seller of a listed article buys, or arranges to have bought, from the purchaser at or about the time of the purchase of the listed article shall be regarded as a trade-in for the purposes of this part.

(l) Misuse of coupon plans. No coupon, ticket, or similar medium of credit, whether paid for in instalments or otherwise, shall be accepted by any Registrant in payment, in whole or in part, for any listed article if such acceptance, in effect, would permit the article to be sold on terms not complying with the requirements of this part.

§ 222.7 Exempt credits. This part shall not apply to any of the following:

(a) Business or agricultural loans. Any loan for business purposes to a business enterprise or for agricultural purposes to a person engaged in agriculture, provided the loan is not for the purpose of purchasing a listed article.

(b) Credit to dealers and certain salesmen. Any extension of credit to a wholesaler or retailer to finance the purchase of any article for resale, or any extension of credit which is made to a bona fide salesman of automobiles in order to finance the purchase of a new automobile to be used by him principally as a demonstrator.

(c) Credit to governmental agencies, religious institutions, etc. Any extension of credit to the Federal Government, any State government, any political subdivision, or any department, agency or establishment thereof, or to any church, hospital, clinic, sanitarium, school, college, or other religious, educational, charitable, or eleemosynary institution.

(d) Credits under Government rehabilitation and readjustment programs. Any extension of credit (1) made by the Land Bank Commissioner on behalf of the Federal Farm Mortgage Corporation or by any Federal land bank and found, pursuant to regulations issued by the Commissioner, to be necessary to maintain or increase production of essential agricultural commodities, (2) made or insured by the Farmers' Home Administration, (3) made in accordance with the regulations of the Secretary of the Interior for the economic development or rehabilitation of Indians, (4) made under section 4 (a) (4) of the Reconstruction Finance Corporation Act, as amended, because of floods or other catastrophes, or (5) made, guaranteed, or insured in whole or in part by the Administrator of Veterans' Affairs pursuant to the provisions of Title III of the Servicemen's Readjustment Act of 1944, or by any State agency pursuant to similar State legislation.

(e) Loans to pay fire and casualty insurance premiums. Any loan to finance a premium in excess of one year on a fire or casualty insurance policy, if the loan is fully secured by the unearned portion of such premium.

(f) Credit for purchasing securities. Any extension of credit which is subject to the Board's regulations under the Securities Exchange Act of 1934 or which is otherwise for the purpose of purchase

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AMAZING, NEW MODEL B SUPERCHARGER CARBONATOR

Solves Installing and Operating Problems for Maximum Sales

There's nothing else like it . . . no other carbonating machine will cut costs, solve dispensing problems for fountain and bar like the Model B Supercharger Carbonator . . . no similar equipment can offer you the same, universal sales potential! Briefly, this is why. The new Model B is a small (16" x 14" x 9"), independent unit that can be tucked away under, beside, near or far from any fountain or bar. Space limitations, lack of basement, varying water pressure or other previous problems of location are no longer obstacles to ownership and use of such a machine. Thus, for the first time, the lid is really off on broad sales of carbonating equipment. Moreover, the same super-carbonated water is produced, regardless of water temperature, low or high pressure, without spitting or change in pressure at the faucet. A new, PATENTED JET RECIRCULATION PRINCIPLE affords troublefree performance. Only two moving parts, virtually nothing to go wrong; no adjustments to make, hence nothing to get out of adjustment. Instantaneous carbonation is accomplished without paddle wheel or mist. No refrigeration required, takes only three simple connections to set up and use. ITS AMAZING, 100-GALLON PER HOUR CAPACITY, FURNISHING HIGH CARBONATION IN EXCESS OF ANY BOTTLED DRINK, HAS ALREADY SOLVED PEAK-HOUR TIE-UPS AT SOME OF THE NATION'S LARGEST ESTABLISHMENTS. Yet, this simple, sanitary unit is modestly priced, to bring its drastic savings, improved quality drinks within the means of the small operator. Why not write for illustrated literature giving complete details? Ask also about arrangements for actual demonstration.



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Text of New Regulation W--

(Concluded from preceding page)

ing or carrying stocks, bonds, or other investment securities.

(g) **Real estate and home improvement loans.** Any extension of credit which is for the purpose of financing or refinancing (1) the construction or purchase of an entire residential building or other entire structure or (2) repairs, alterations, or improvements upon urban, suburban or rural real property in connection with existing structures, except to the extent that such repairs, alterations, or improvements incorporate any listed article.

(h) **Loans to meet medical expenses, etc.** Any loan as to which the Registrant accepts in good faith a written statement signed by the borrower certifying that the proceeds are to be used for bona fide educational, medical, hospital, dental, or funeral expenses, or to pay debts incurred for such expenses, and that such proceeds, (unless they are to be used exclusively for educational expenses) are to be paid over in amounts specified in such statement to persons whose names, addresses, and occupations are stated therein.

(i) **Disaster credits.** Any extension of credit to finance the repair or replacement of property damaged or lost as a result of a flood or other similar disaster which the Federal Reserve Bank of the district in which the disaster occurred finds has created an emergency affecting a substantial number of the inhabitants of the stricken area, provided such extension is made prior to the end of the sixth calendar month following the month in which the disaster occurred and a statement describing the damage or loss is preserved in the Registrant's files.

§ 222.8 **Miscellaneous provisions; definitions.**—(a) **Preservation of records; inspections.** Every Registrant shall preserve, for the life of the obligation to which they relate, such books of account, records, and other papers (including any statements required by or obtained pursuant to this part) as are relevant to establishing whether or not an extension of credit within the scope of this part was in conformity with the requirements thereof, provided, however, that the Registrant may preserve photographic reproductions in lieu of such books of account, records or papers.

For the purpose of determining whether or not there has been compliance with the requirements of this part, every Registrant shall permit the Board or any Federal Reserve Bank by its duly authorized representatives, to make such inspections of its business operations as the Board of Federal Reserve Bank may deem necessary or appropriate, including inspections of books of account, contracts, letters or other relevant papers wherever located, and, for such purpose, shall furnish such reports as the Board or the Federal Reserve Bank may require. When ordered to do so by the Board, every Registrant shall furnish, under oath or otherwise, such information relative to any transaction within the scope of the authority cited in § 222.1 as the Board may deem necessary or appropriate for such purpose, including the production of books of account, contracts, letters or other papers in the custody or control of such person.

(b) **Suspension of license.** The license of any Registrant may, after reasonable notice and opportunity for hearing, be suspended by the Board, in its entirety or as to particular activities or particular offices or for specified periods, because of any willful or negligent failure to comply with any provision of this part or any requirement of the Board pursuant thereto.

A license which is suspended for a specified period will again become effective upon the expiration of such period. A license which is suspended indefinitely may be restored by the Board, in its discretion, if the Board is satisfied that its restoration would not lead to further violations of this part and would not be otherwise incompatible with the public interest.

(c) **Enforceability of contracts.** Except as may subsequently be otherwise provided, all provisions of this part are designated, pursuant to section 2 (d) of the Executive order, as being "for administrative purposes" within the meaning of said section 2 (d), which provides that noncompliance with provisions of the part so designated shall not affect the right to enforce contracts.

(d) **Clerical errors.** Any failure to comply with this part resulting from a mistake in determining, calculating, or recording any price, down payment, or extension of credit, or other similar matter, shall not be construed to be a violation of this part if the Registrant establishes that such failure to comply was the result of excusable error and was not occasioned by a regular course of dealing.

(e) **Non-compliance due to facts outside registrant's knowledge.** The provisions of this part shall not apply to a Registrant with respect to any failure to comply with this part in connection with (1) an extension of credit made by him if, at the time he made it, he did not know or have reason to know any fact by reason of which such extension failed to comply; (2) an obligation purchased, discounted or acquired as collateral by him if, when he purchased or

discounted the obligation or acquired it as collateral, the obligation did not show on its face any failure to comply and he did not know any fact by reason of which the extension of credit giving rise to the obligation failed to comply; or (3) an obligation renewed, revised, or consolidated by him if, at the time when he renewed, revised or consolidated it, he did not know or have reason to know any fact by reason of which such renewal, revision or consolidation failed to comply. With respect to any loan on the security of an obligation which arises out of an extension of credit subject to this part, the prohibitions of this part shall be deemed to apply only to payments arising out of the obligation rather than to payments arising out of the loan.

(f) **Transactions outside United States.** Nothing in this part shall apply with respect to any extension of credit made in Alaska, the Panama Canal Zone, or any territory or possession outside the continental United States.

(g) **Right of registrant to impose stricter requirements.** Any Registrant has the right to refuse to extend credit, or to extend less credit than the amount permitted by this part, or to require that repayment be made within a shorter period than the maximum permitted by this part.

(h) **Definitions.** For the purposes of this part, unless the context otherwise requires:

(1) "Person" means an individual, partnership, association, or corporation.

(2) "Registrant" has the meaning given it in § 222.2 (a).

(3) "Extension of credit" has the meaning given it in the Executive order.

(4) "Installment credit" means an extension of credit which the obligor undertakes to repay in two or more scheduled payments or as to which the obligor undertakes to make two or more scheduled payments or deposits usable to liquidate the credit, or which has a similar purpose or effect.

(5) "Installment sale" means an installment credit in a principal amount of \$5,000 or less which is made as principal, agent or broker, by any seller of any consumers' durable good listed in § 222.9 (herein called a "listed article") and which arises out of a sale of such listed article. For this purpose, "sale" includes a lease, bailment, or other transaction which is similar in purpose or effect to a sale.

(6) "Installment loan" means an installment credit, other than an installment sale, in the form of a loan which is in a principal amount of \$5,000 or less; but the definition does not include any loan upon the security of any obligation which arises out of any installment sale or installment loan.

(7) "Cash price" means the bona fide cash purchase price of an article, including the bona fide cash purchase price of any accessories, any bona fide delivery, installation, and service charges (other than interest, finance, or insurance charges), and any applicable sales taxes.

(8) "Principal amount" in the case of an installment sale means the total amount to be paid under the obligation minus the finance charge, and in the case of an installment loan means the amount lent exclusive of interest (whether or not such interest is deducted in advance).

§ 222.9 **Supplement.**

Part 1. Listed articles, down payments, loan values. For the purposes of this Part, the following articles, whether new or used, are "listed articles," and the following required down payments and maximum loan values are prescribed (such down payments and loan values to be calculated as specified in Parts 4 and 5 of this section); but no article having a cash price of less than \$50.00 shall be considered a listed article:

Group A—33 1/3% minimum down payment, 66 2/3% maximum loan value:

1. Automobiles (passenger cars designed for the purpose of transporting less than 10 passengers, including taxicabs).

Group B—20% minimum down payment, 80% maximum loan value:

1. Cooking stoves and ranges, designed for household use.

2. Dishwashers, mechanical, designed for household use.

3. Ironers designed for household use.

4. Refrigerators, mechanical, of less than 12 cu. ft. rated storage capacity (including food freezers).

5. Washing machines designed for household use.

6. Combination units incorporating any listed article in the foregoing classifications of this Group B.

7. Air conditioners, room unit.

8. Radio or television receiving sets, phonographs, or combinations.

9. Sewing machines designed for household use.

10. Suction cleaners designed for household use.

11. Furniture, household (including ice refrigerators, bed springs, mattresses, and lamps); and floor coverings, soft surface.

Part 2. Maturities. The maximum maturity for all listed articles and for unclassified installment loans is 15 months in case the extension of credit is in a principal amount of \$1,000 or less and 18 months in case the extension of credit

"The pertinent part of the Executive order reads as follows: "Extension of credit" means any loan or mortgage; any installment purchase contract, any conditional sales contract, or any sale or contract of sale under which part or all of the price is payable subsequent to the making of such sale or contract; any rental-purchase contract, or any contract for the bailment or leasing of property under which the bailee or lessee either has the option of becoming the owner thereof or obligates himself to pay as compensation a sum substantially equivalent to or in excess of the value thereof; any contract creating any lien or similar claim or property to be discharged by the payment of money; any purchase, discount, or other acquisition of, or any extension of credit upon the security of, any obligation or claim arising out of any of the foregoing; and any transaction or series of transactions having a similar purpose or effect.

In addition, the authority cited in § 222.1 authorizes the Board to institute court proceedings to restrain violations of, and to compel compliance with, the Part or any order of the Board made in pursuance thereof. Furthermore, any Registrant who willfully violates or knowingly participates in a violation of this Part is subject to the penalties prescribed in section 5 (b) of the act of Oct. 6, 1917, as amended, which reads in part as follows: "Whoever willfully violates any of the provisions of this subdivision or of any license, order, rule, or regulation issued thereunder, shall, upon conviction, be fined not more than \$10,000, or, if a natural person, may be imprisoned for not more than ten years, or both; and any officer, director, or agent of any corporation who knowingly participates in such violation may be punished by a like fine, imprisonment, or both."

is in a principal amount of more than \$1,000, except that when such principal amount is more than \$1,000 the installment payments shall not be less than \$70 per month.

Part 3. Refinancing pursuant to Statement of Changed Conditions. The maximum maturity of any refinancing pursuant to a Statement of Changed Conditions as specified in § 222.5 (b) shall be 20 months.

Part 4. Calculation of down payments for automobiles. The maximum loan value of any automobile shall be the specified percentage of the cash price or of the "appraisal guide value," whichever is lower, and the required down payment shall be the difference between the cash price and the maximum loan value as so calculated. Such required down payment in the case of an automobile may be obtained in the form of cash, trade-in, or both.

"Appraisal guide value" means the estimated average retail value as stated in the current edition of any regularly published automobile appraisal guide that the Board designates for this purpose for use in the territory in which such automobile is sold, plus any applicable sales taxes. Information as to the guide or guides designated for any given territory may be obtained from any Federal Reserve Bank or branch.

Part 5. Calculation of down payments for articles in Group B. If any article is traded in by the purchaser on an article listed in Group B, the required down payment and the maximum loan value shall be the specified percentage of the net price of the article after deducting from the cash price the amount allowed for the trade-in; and such down payment shall be obtained in cash in addition to the trade-in.

2. (a) Part 222 is issued by the Board of Governors of the Federal Reserve System under the authority of section 5 (b) of the Act of Oct. 6, 1917, as amended (40 Stat. 415; 12 USC 95a), Executive Order No. 8843 (dated Aug. 9, 1941), and Public Law 905, approved Aug. 16, 1948.

The purposes of the Part is to prescribe appropriate terms in connection with consumer installment credit, including appropriate supporting rules, in order to protect the Nation's monetary, banking, and credit structure, and interstate and foreign commerce, against increased inflationary pressures.

Arguments Invited on 2 Proposed Changes

[Regulation W]

CONSUMER INSTALLMENT CREDIT NOTICE OF PROPOSED CHANGES

The Board of Governors of the Federal Reserve System has adopted, and has had published in the FEDERAL REGISTER, Part 222 (relating to Consumer Installment Credit) to become effective Sept. 20, 1948. That part is also called Regulation W. The Board has under consideration, with a view to possible future adoption, certain proposed amendments to the part. These proposed amendments may be described in general terms as follows:

1. **Modernization and repair credits.** Amendments which would bring under this part so-called modernization and repair credits, that is, credit for repairs, alterations or improvements upon real property in connection with existing structures. Such amendments would involve several changes in the provisions of this part. One such change might be the elimination of the exemption of these credits which is now contained in clause (2) of § 222.7 (g) of this part. Another necessary change might be to add to § 222.9 of this part a provision

subjecting such credits to such down payment (and maximum loan value) requirements, maximum maturities, or both, as the Board might prescribe.

2. **Enforceability of contracts.** Amendments to this part which would have the effect of making unenforceable contracts (and related liens) which violate this part, or which violate certain provisions thereof, such as those relating to down payments and maximum maturities. Such amendments would involve the deletion or amendment of § 222.8 (c) of this part, and might also involve changes in other provisions of this part, including § 222.8 (e) relating to noncompliance due to facts outside the Registrant's knowledge.

Interested persons may submit data, views or arguments with respect to these matters; and any such material should be submitted in writing. Although submissions or requests may be sent directly to the Board, it is preferable that they be sent to the Federal Reserve Bank of the district in which the interested person resides or maintains his business, which will forward them to the Board. To be considered, all material must be received not later than Sept. 20, 1948.

(b) The notice and public procedure described in sections 4 (a) and 4 (b) of the Administrative Procedure Act are impracticable, unnecessary, and contrary to the public interest in connection with the prescribing of this Part for the following reasons and good cause found:

(1) Because of present inflationary pressures, in the light of which Public Law 905 providing authority for the Part until June 30, 1949, was enacted by a special session of Congress, and in order to prevent the Part from being inoperative during a substantial part of the temporary period during which the Part is authorized, it is desirable in the public interest that the Part become effective more promptly than would be possible if procedure were followed.

(2) A similar regulation of the Board of Governors of the Federal Reserve System was in effect until Nov. 1, 1947 [12 CFR

222, Supp. 1946], and that regulation as then in effect was the result not only of broad experience extending over a period of more than six years but also of extensive consultation with persons affected by the regulation. The new Part is substantially the same as such previous regulation, except for an increase in the size of credits covered by the regulation and certain relaxations from the previous regulation.

(3) For the reasons stated in section 2 (e) of the Rules of Procedure of the Board of Governors of the Federal Reserve System [12 CFR 262.2 (e), Supp. 1946] a large part of the subject matter is not adapted to such procedure.

Approved this 17th day of August, 1948.

BOARD OF GOVERNORS OF THE
FEDERAL RESERVE SYSTEM,
[SEAL] S. R. CARPENTER,
Secretary.



Triple inspection and careful selective fitting of all parts is standard procedure at Tecumseh's high speed production plant. Above, rigid crankcase inspection holds cylinder bore to .0002" (two ten-thousandths of an inch) round and taper.

Now! Famous Chieftain Single, Twin and 4 Cylinder Compressors Ready for Immediate Shipment!

Bottlenecks have been broken, material shortages licked . . . and, now again at last, genuine Chieftain Compressors are being produced in sufficient volume to assure immediate shipments . . . in unrestricted quantities . . . for all replacement installations as well as for assembly by manufacturers into their own products and equipment.

Chieftain, you know, has consistently set the quality pace for the industry . . . has pioneered such important advances in compressor design and manufacture as mass precision machining methods, forced feed lubrication for reciprocating parts, automatic cylinder lubrication, "Chieftainizing" connecting rods to prevent scoring, plus many, many others. And these are only a few of the reasons why smooth, quiet, dependable Chieftain Compressors have become the standard of the industry . . . a few of the good basic reasons, too, why it pays to insist on genuine Chieftain Compressors for new equipment and all replacement installations.

TECUMSEH PRODUCTS COMPANY

Tecumseh, Michigan

EXPORT DEPARTMENT • 2111 Woodward Avenue • Detroit 1, Michigan

WORLD'S LARGEST INDEPENDENT PRODUCER OF COMPRESSORS AND CONDENSING UNITS FOR THE REFRIGERATION INDUSTRY



They'll Do It Every Time By Jimmy Hatlo

WORKING OVERTIME GRIPES DILLDOCK. HE WATCHES THE CLOCK LIKE A HAWK--



BUT WHEN HE WAKES DOC BEAKER, THE DRUGGIST, AT 4 A.M.--THAT'S DIFFERENT!



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VOLUME 54, No. 18, SERIAL No. 1,015, AUGUST 30, 1948

The Real Cause Of High Prices: The High Cost Of Government

OUR major problem, as proud citizens of the United States, is double-jointed: we must keep the Red out of the United States, and keep the United States out of the red.

To figure out a solution to that double-jointed dilemma, America's keenest minds should collaborate. If and when they do, we hope they will recommend action on the part of our Congressmen toward the reduction and control of presently extravagant Federal expenditures along these lines:

- (1) Encouragement of the President and his executive agencies to reduce currently exorbitant Federal expenditures by executive fiat;
- (2) Inducing the President and Congress to cooperate toward that worthy end;
- (3) Close scrutiny by Congress of all spending proposals, and adoption of more effective controls on the uses to which appropriations are put;
- (4) A Scotchman's double-check on the deficiency appropriation "racket";
- (5) Stopping at the source demands for new and expanded functions of government;
- (6) Refusal to expand non-military functions of government;
- (7) Re-examination of all entrenched functions of government (via the forthcoming Hoover Report) with a purposeful intent to save taxpayers' money by eliminating useless and overlapping bureaus;
- (8) Postponement of government-spending projects already authorized, if possible;
- (9) Review of grants-in-aid policies and practices;
- (10) Reorganization of government bureaus to eliminate Civil Service waste, no-longer-important functions, pyramided nepotism, and
- (11) An increase in the efficiency and effectiveness of government service by making thrifty service to the People more attractive to honest public servants.

It's the high cost of government which is keeping prices too high.

Reforms like those suggested above—if enacted and enforced—would cut the High Cost of Living tremendously.

Government Social Services—which often seem like a good idea at the time they are proposed—inevitably require the establishment of a bureaucracy which is wasteful and extravagant.

Taxpayers pay three times over what they figured these Social Services would cost.

Because taxes are passed on to consumers in terms of higher prices, the very people who shouted the loudest for expanded government services are those who are hit the hardest.

If YOU want lower prices, YOU should insist on tax reduction through government reorganization. The price of Big Government has inflated to a point where most of us can't afford it any longer.

Order Through Your Refrigeration Wholesaler



Your jobber knows your problems, and he knows the goods he sells. He is in a position to help you in many ways.

As a manufacturer of refrigeration products, we know, through experience, that the old fetish "that the middle man makes goods cost more", is absolutely incorrect. We know that through the service he renders, the goods actually reach the buyer at a lower cost.

WHY IS THIS A FACT?

As manufacturers, we know that if we sold direct, we would require billing, accounting, and shipping departments 10 to 20 times greater in personnel and equipment than we have at present. Our transportation charges would increase tremendously—our storage space would have to be enlarged. These and many other increased costs would necessarily have to be reflected in the price of the product to you.

YOUR WHOLESALER IS NOW BETTER STOCKED THAN ANY TIME DURING THE LAST 5 OR 6

YEARS, AND HE CAN MAKE SPEEDIER DELIVERY OF YOUR NEEDS.

In the distribution of our goods we have always consistently adhered to the selective wholesaler plan. We sell only sufficient of these in a locality to assure complete coverage of territory and trade. We refer all trade inquiries to the wholesaler.

When you want time-tested performance and built-in quality in refrigeration valves and fittings, use Mueller Brass Co. products and—give your business friend—the wholesaler, a call.

ORDER THROUGH HIM

MUELLER BRASS CO.
PORT HURON, MICHIGAN

SWELL TIME ICE CREAM TRUCKS

Prove "100% Trouble-Free Operation" with

DEPENDABLE

REFRIGERATION VALVES

Below — This imposing lineup of modern ice cream trucks is only a small part of the great fleet of more than 225 serving retail outlets of the SWELL TIME ICE CREAM CORPORATION, Burbank, California.



Above — Closeup of the attractively designed refrigerated retail trucks that deliver SWELL TIME ice cream throughout southern California and Arizona.

SWELL TIME Ice Cream Corporation, Burbank, California, one of the largest and most aggressive organizations on the West Coast and in the Country, has been using A-P Thermostatic Expansion Valves for over two years — on their big fleet of trucks and in all retail outlets. Of their performance Mr. Leo P. Odette, Refrigeration Manager says:

"We use A-P Valves on our 225 one-ton retail trucks and all our equipment, and have never had to change a valve after installation.

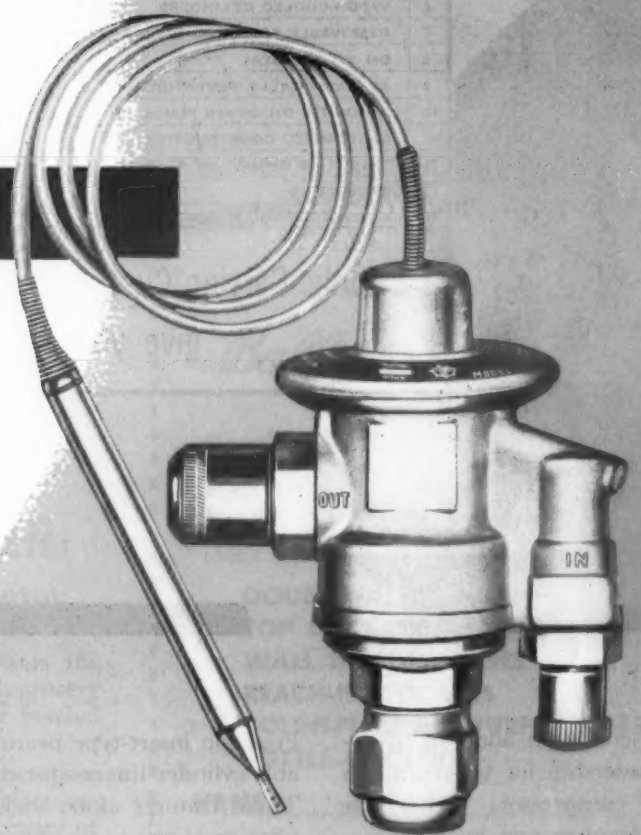
"We have had 100% trouble-free operation since using A-P Valves exclusively for the last two years. We highly recommend A-P Valves."

This is the type of efficiency and DEPENDABILITY that service engineers the world over have learned to expect from A-P DEPENDABLE Refrigeration Valves . . . Accurate, supersensitive, long-life refrigerant control that makes A-P Valves the ready choice for all types and sizes of refrigeration and air conditioning. They're stocked and sold by your favorite Wholesaler.

Model 207 Thermostatic Expansion Valve

This half-ton A-P Model 207 fits an amazingly wide range of applications. You can install it — without adjustment and without changing or exchanging any parts — on anything from low temperature sharp freezers, ice cream makers and dispensing cabinets to medium temperature display cases and reach-in boxes, and up through the entire air conditioning temperature range.

The A-P Model 207 maintains constant superheat at all these suction temperatures. With its liquid charged power element, it can be installed in any position or ambient temperature, and is easier to adjust, inspect and service. Use it, for "performance insurance", on all your small-system applications — ¼ to ½ ton Freon 12. See it, buy it, at your Wholesaler — or write for bulletin E-131 and Condensed Catalog.



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2450 NORTH THIRTY-SECOND STREET, MILWAUKEE 10, WISCONSIN

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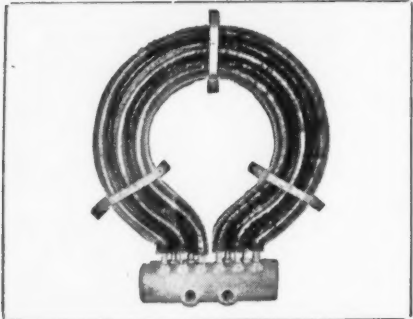


DEPENDABLE REFRIGERATION VALVES

STOCKED AND SOLD BY GOOD REFRIGERATION WHOLESALERS EVERYWHERE
... RECOMMENDED AND INSTALLED BY LEADING REFRIGERATION SERVICE ENGINEERS

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Rome Water Cooled Condenser Coils insure trouble-free condensing equipment. Used by leading compressor manufacturers

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Valve and Fittings Co.
PITTSBURGH 20, PENNA.

For Mountain Climbing Tourists

16-Cu. Ft. Reach-Ins Help Drugstore
Build Volume on Sandwiches for Trips

ESTES PARK, Colo.—Ample refrigerated storage capacity has made possible an unusual specialty at the Silver Spruce Pharmacy here—where druggist Glenn V. Swearingen daily sells hundreds of sandwiches in large quantities to tourists for “snacks” along mountain roads on vacation trips.

The drugstore, one of the most modern in Colorado, was constructed two years ago, and features a soda fountain-luncheonette so large that it requires nine employees per shift to operate it. One of the outstanding features is a 6-ft. sandwich preparation bar at the extreme right-rear, which has refrigerated storage space for many varieties of sandwich fillers, spreads, bread, etc., made up in large quantities.

As each soda fountain customer is served with a sandwich or drink, fountain girls suggest “We put up sandwiches for your mountain trips.” This, of course, solves the problem of many tourists who forgot to pack box lunches, etc., when starting out on their trips.

Beneath the sandwich rail, which is equipped with toasters, grills, etc., are two 16-cu. ft. reach-in refrigerators, with all exterior woodwork finished in the same primavera wood as is the fountain rail. One compartment is used to keep loaves of bread refrigerated to 40°, which

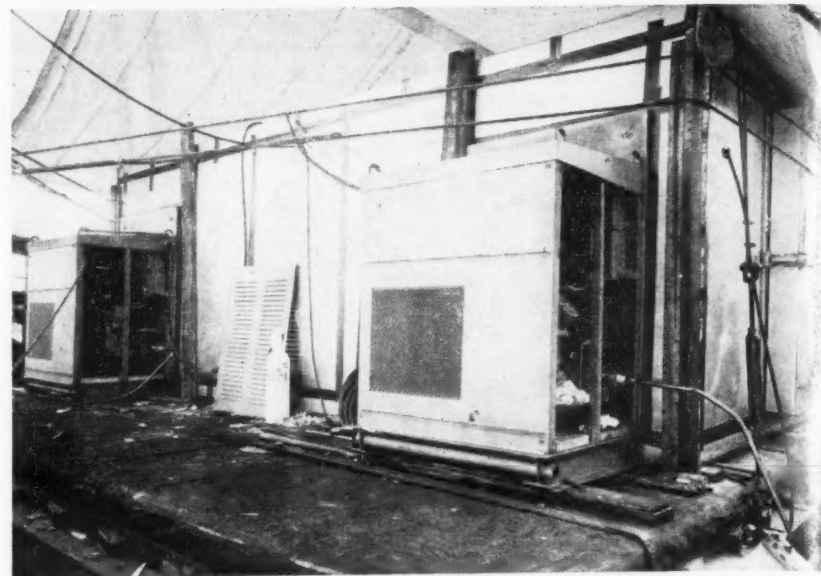
Swearingen has found maintains freshness and taste over long periods of time.

In the other are ground meats, relish spreads, salad spreads, cold meats, etc., in gallon stainless steel insets, made up in advance, and kept refrigerated at a smooth 50°. Customers may order as many sandwiches as they wish, which are prepared at once, wrapped in waxed paper and sealed shut to preserve freshness, or may leave an order in the morning and pick up the complete lunch ready to go at the start of their trip.

There is plenty of space in the refrigerator for made-up sandwiches to be refrigerated to maintain their freshness until called for. In this way, the store is able to use slack hours during the day for making up sandwich orders, instead of “dropping everything” to complete large orders while the customer waits, Swearingen said.

Both of the sandwich bar refrigerators, plus 12 ft. of refrigerated space behind the counter for fountain syrups, fresh fruits, etc., are powered by two condensing units, connected so that either may operate the system as desired. In this way, the refrigerated compartments have helped the drugstore to achieve the unusual fountain-luncheonette sales volume of \$6,000 per week in the summer season.

A Freezer for a Hot Spot



Set up on a Liberty ship's hatch, this “jury rigged” Reco-Fab unit is heading for the Persian Gulf.

Reco-Fab Unit Gets Call When Frozen Food Storage Is Needed on Ship Sailing In 4 Days

PHILADELPHIA—How it filled a rush order to provide low-temperature cargo space on a vessel which had to carry frozen foods to an exploration crew of an oil company in the Persian Gulf area was recounted by Reco Products Division of Refrigeration Engineering Corp.

When advised on a recent Tuesday that the vessel—a chartered Liberty Ship of Canadian design—was to sail on the following Saturday, all concerned put their heads together, to develop a “jury rigged” but seaworthy expedient.

In conjunction with a Baltimore refrigeration contractor, a Model 120-5 “RECO-FAB” pre-fabricated sectional cooler, measuring 12 ft. 1 in. by 19 ft. 3 in. by 7 ft. 6 in. high, was erected on the No. 3 hatch of the ship. This hatch is located between two superstructures, thus affording fairly good protection for the unit.

The walk-in was rigidly blocked in place and further braced through use of sling wires placed about the top and base and made fast to pad eyes. It was then protected from excessive sun rays by means of an awning slung between the two superstructures.

Refrigeration was provided by two 3-hp. air-cooled Carrier Navy surplus units which were converted

for operation on 115 d.c. current through use of marine-type d.c. motors. Also securely blocked in place, the units were connected by means of temporary wiring to the main switchboard of the vessel.

Water defrost coils were connected to the fresh water supply. In order to conserve the supply of fresh water as much as possible, the run-off from the defrost lines was led to the boiler feed water tank. Since the cooler was sealed for the 33-day voyage, it was not anticipated that much defrosting of the coils would be required.

During installation work, the ship's engineer was trained in the maintenance and operation of the equipment for the voyage, and supplied with a spare parts kit, tool box, and maintenance instructions.

When the vessel sailed, the cargo reefer contained 14 tons of frozen beef, chicken, and bacon.

The cooler was to be offloaded upon arrival of the ship and used for dock storage. Alternating current motors and controls to convert the refrigeration units for shore use were supplied.

Reco Products Division said it is now in the process of building a number of portable, welded steel reefers for future shipments.

LIST OF FEATURES		Carrier — Makes					
		Carrier	B	C	D	E	F
1	AUTOMATIC LOAD-FREE STARTING	X	X		X		X
2	BUILT-IN AUTOMATIC CAPACITY CONTROL	X	X				X
3	CAPACITY EXTERNALLY CONTROLLABLE	X					
4	VAPOR-CUSHIONED VALVES	X					
5	INDIVIDUALLY REMOVABLE CYLINDER LINERS	X	X			X	X
6	VAPOR-COOLED CYLINDERS	X	X				X
7	REMOVABLE PRECISION BEARINGS	X	X				
8	OIL-COOLED SEAL	X	X			X	X
9	AUTOMATICALLY REVERSIBLE OIL PUMP	X	X				
10	MAGNETIC OIL-DRAIN PLUGS	X					
11	CUSTOMIZED CONSTRUCTION	X					
12	CHOICE OF DIRECT OR BELT DRIVE	X					X
13	DUAL UNITS	X	X				X
14	APPLICABLE TO “FREON 22”	X		X		X	X

only Carrier Customized compressors
give you all 14

There's a score that adds up to impressive leadership for Carrier's new Customized compressors. Take these stand-out features one by one . . . think what they mean to you in long, economical, flexible service:

Automatic load-free starting, built-in capacity control—for low operating cost. Vapor-cushioned valves, magnetic oil-drain plugs—for long life.

Precision insert-type bearings, removable cylinder liners—for easy service. These features alone make the new Carrier compressors the wise choice for tough refrigeration jobs.

And with them all you get wide flexibility—actually more than 1000 combinations to fit your specific needs. You choose the motor, the type of drive, the condenser. With direct drive, you can

operate two compressors as a dual unit to give you up to 100 tons capacity.

The new Customized compressors are the latest achievement of Carrier refrigeration research and world-wide experience. Carrier engineering skill and reputation are added advantages you get only with Carrier refrigeration. Carrier Corporation, Syracuse, New York.

Carrier

AIR CONDITIONING • REFRIGERATION • INDUSTRIAL HEATING

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MAGNETIC STARTERS
and CONTACTORS

NEW!

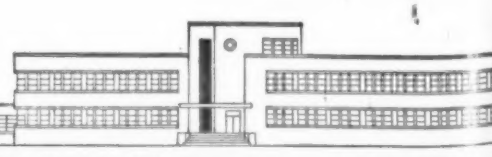


Get the facts now, about this entirely new line of motor starters. Compact, easy-to-install, sturdily constructed for long life and dependability.

Built in sizes 0, 1 and 1½. Available with Type 1 enclosures or as open-type models for control panels. Overload relays easily adjustable for automatic or manual reset. Write now for Bulletin 2705 to Penn Electric Switch Co., Goshen, Indiana. Export Division: 13 East 40th Street, New York 16, N.Y. Canada: Penn Controls Ltd., Toronto, Ontario.

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BULLETIN
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AUTOMATIC CONTROL

FOR HEATING, REFRIGERATION, AIR CONDITIONING, ENGINES, PUMPS AND AIR COMPRESSORS

What's New

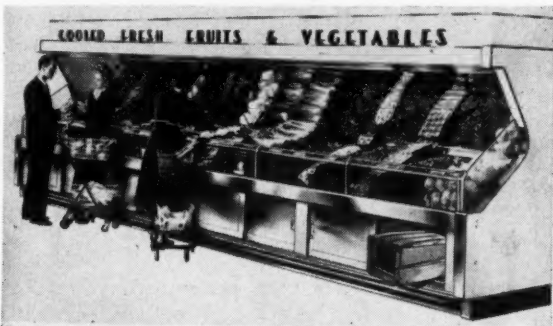
Produce Case Display Deck Is a Yard Wide

TRENTON, N. J.—A display deck measuring a full yard from front to back is the outstanding feature of the new refrigerated produce case, model 45VR, recently introduced by C. V. Hill & Co. here.

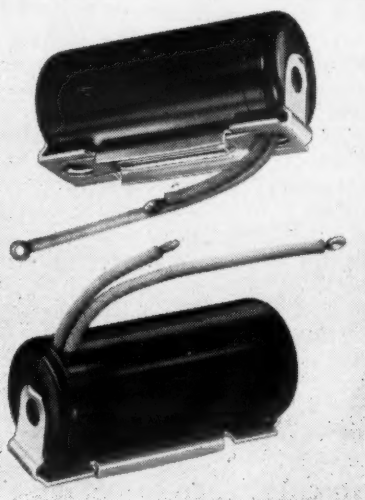
This display rack, which is also wider than normal, was designed to provide mass display and storage of vegetables, the company points out. The lowness of the fixture allows easy accessibility of all items on the rack in spite of greater depth.

Overhead fluorescent lights illuminate the display surface, which is made to appear even larger by a full length back mirror.

Other features of the stand are Add-A-Unit construction, refrigerated storage equipped with slide out rollers and a hose connection, sanitary white ends, and a wear-resisting stainless-steel front, according to Hill.



New Capacitors Have Alternative Mountings



Upper picture shows capacitor for "on motor" mounting while model below is for "off motor" mounting.

INDIANAPOLIS—A new Type P dry electrolytic a.c. capacitor for motor starting and intermittent service has been introduced by P. R. Mallory & Co., Inc. here.

The new capacitors feature a new molded plastic case and new mounting accessories that permit mounting either on or off the motor.

The molded plastic case, according to the company, permitted a reduction in the size of the capacitor and provided better insulation than the cardboard sleeves formerly used.

Only a bracket and a single end cap are needed for mounting the capacitor. When mounted on the motor, one style of cap permits bringing the wires through the bracket hole for soldering to the terminals. When mounted off the motor, another style cap allows the leads to emerge on the opposite side of the cap without going through the bracket hole.

The Type P a.c. capacitors use 110, 125, 165, and 220 volt current.

'Vibro-Levelers' Combat Machine Vibrations

ROYAL OAK, Mich.—Bushings, Inc. here is manufacturing a line of machinery mountings under the name "Vibro-Levelers," which are said to stop transmission of vibration and allow precision leveling of machines, without need of cutting flooring.

Recommended for use with blowers, compressors, and other heavy and light machinery, the mounts come in 12 standard sizes with capacities ranging from 10 lbs. to 2,000 lbs., according to the manufacturer.

The mountings feature rubber-in-shear vibration dampers and precision levelers. Ease of installation and low cost are cited as advantages of the new product which requires no additional special parts or tapping or fitting for installation.

Copper and brass construction . . . one piece copper shell . . . no soft solder joints . . . easily refilled on the job . . . packed with dust-free Silica Gel . . . interchangeable connections on larger sizes . . . metallic depth filter, graduated in size with drier capacity. Eight sizes—1/6 to 7 1/2 HP . . . 3 to 75 CU. IN. capacity.



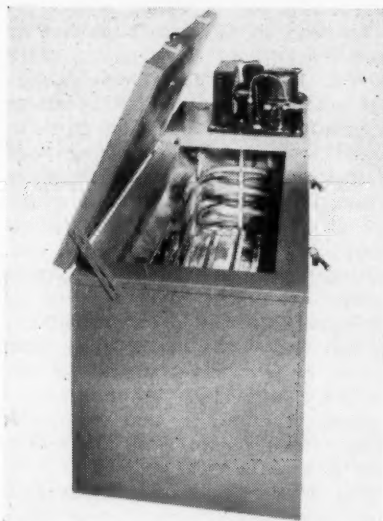
IMPERIAL TORPEDO DRIER

... designed for faster, more efficient drying action

See Your Jobber

THE IMPERIAL BRASS MFG. CO.
565 S. Racine Ave., Chicago 7, Ill.

Stainless Steel Inner Tank In New Milk Cooler

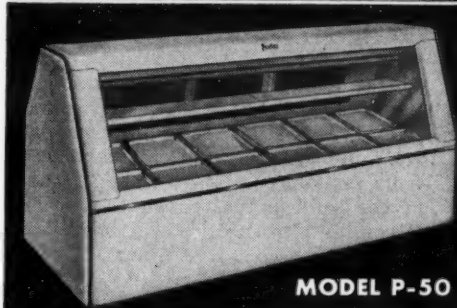


ST. LOUIS—Master-Bilt Refrigeration Mfg. Co. here has gone into production on its new milk coolers with stainless steel inner tanks and is the first to come out with this type product, C. J. Sieber, director of sales for the company, announced here recently.

The company is also producing an 11-cu. ft. and a 17-cu. ft. home and farm freezer and a line of dry beverage coolers with stainless steel exteriors, he added.

Sieber said that due to an almost doubled sales volume over last year, the company has been able to absorb increased costs in larger production and therefore plans no price increases on its products.

DOUBLE-DUTY DISPLAY CASE



MODEL P-50

IMMEDIATE DELIVERY

Available in 6 ft. and 8 ft. sizes. Porcelain exterior. Stainless steel interior. Mezzanine shelf. One piece, hard rubber, service doors with triple, non-fogging glass. Free-flow air circulating refrigerating system. JORDON "Moist-Cold" Coils. Brilliant, cool, fluorescent illumination. Heavy-duty construction and insulation. Other styles and sizes available at once.



JORDON REFRIGERATOR CO.
58th ST. and GRAYS AVE.
PHILADELPHIA 43, PA.
CABLE: "JORDONREF" • Belgrade 6-4510

Double Feature!

TODAY AND EVERY DAY



THAWZONE, the moving dehydrant, circulates and searches out moisture, destroying it chemically. For new and reconditioned units, as well as old.



TRACE is a highly effective refrigerant leak detector. Its stable, red color reveals leaks promptly in old or new systems.

HIGHSIDE CHEMICALS CO.
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AUTHORIZED DEALER for

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Western Packaging Show To Be Repeated

SAN FRANCISCO—Success of the first Western Packaging Exposition and the concurrent first Western Conference on Packaging, Packing and Shipping—which concluded its four-day run at the San Francisco Civic Auditorium recently—assures continuation of the show as an annual industry event in San Francisco, according to Saul Poliak of Clapp & Poliak, Inc., sponsor and manager of the show.

Dates of the 1949 show will be Aug. 9 to 12, inclusive, and it is expected that many more exhibitors will participate.

"Over 6,000 business, industrial, and agricultural executives from all parts of the West attended this first Western Packaging Exposition," says Poliak.

Movie Explaining Processing of Wild Game In Locker Plants Planned by Wyoming Group

JACKSON, Wyo.—Plans for an educational film to be taken in Wyoming covering the care of wild game in the locker plant, and envisioning of interstate commerce controls on locker plants, were features of the semi-annual convention of the Wyoming Frozen Food Locker and Packers Association here. Plant operators and marketing experts from Wyoming, Colorado, and Utah attended.

B. M. Anderson, president of the Utah locker association, disclosed that an industrial movie already is being made in Utah. The "honey-moon is over" for the locker industry, he declared, and it is now necessary to engage in an "out advertising and promotional program."

Ideas for the proposed Wyoming film were given in a promotional

film on California which was shown at Jackson by William Eberhart and Fred Rockett of the Wildlife Films Co. of Hollywood. They declared that educational films for sportsmen on preparation of fish and game for frozen food locker processing would be welcomed by sportsman's organization over the entire nation.

A Casper locker plant was chosen tentatively as the site for the locker processing section of the Wyoming movie, which will cover care of wild game both in the field and after it arrives at the processing plant. Robert Brown, Wyoming state game warden, suggested a pamphlet to augment the movie, and committees were named to work out details for both proposals.

The locker operators saw interstate commerce within their industry as inevitable in view of the coming day when locker plants with exchange foods in their various locales will be linked by air express.

Also discussed at the convention were improvement of locker plant laws in Wyoming, slaughtering rules and regulations. A draft of the latter, governing slaughtering for the frozen food industry, was presented by George B. Harston, acting commissioner of the state department of agriculture, and the operators viewed the proposed rules and regulations, then returned them to the committee for double-checking against existing state laws on slaughtering.

The committee's attorney will draft proposed legislation for presentation to Wyoming's 1949 legislature, in an attempt to rejuvenate the antedated laws now in effect.

President Earl Ganow, Douglas, and Secretary L. M. Coen, Riverton, of the Wyoming association, pointed out that consumer demand has forced locker plants to include such services in the meat line as slaughtering, skinning, curing, and shipping.

The Wyoming association, it was emphasized, reflects an important trend in the frozen food business by including meat packers in the membership, thus uniting food suppliers at the direct meeting point for producer and consumer—the cold storage plant. Action making packers eligible for association membership was taken by the locker operators at a meeting earlier this year.

The Jackson convention featured a contest to pick the best ham and bacon, cured and smoked in a Wyoming locker plant, and trophies for the best bacon and best pre-cooked ham were won by Dick Leferink of the Frozen Food Lockers, Inc., Casper.

The prize-winning specimens were processed by the Ferguson Meat Processing Co. at the Casper firm's plant. Judges were Dr. A. Hilston of the University of Wyoming, Mr. Hurston of the Wyoming agricultural extension service, and Mr. McCormack, director of markets in Colorado. Judging was based on U. S. standards, considering such points as contour, texture, color, smoke, and flavor. Other trophies were won by lockermen at Cheyenne and Riverton.

Carved In Mountainside

Locker Plant at Mountain Resort Proves Ideal Year-Round Investment for Grocery

ESTES PARK, Colo.—A 500-unit refrigerated locker plant built two years ago by Merrill Moorehead, proprietor of the Estes Park Grocery Co. here, has proven an ideal investment.

The locker plant, carved into a mountainside two blocks away from the downtown grocery store, is a York installation, with 500 metal lockers, renting at from \$18 to \$20 per year. The only refrigerated storage plant in the Estes Park area, it has proven invaluable both for year-round residents, and summer tourists who come to spend six weeks or more fishing and hunting in the Rocky Mountain area.

"All of our lockers are used regularly for storing trout, small game, and big game," he pointed out, "which, of course, brings us in considerable processing revenue over and above locker rentals."

All processing for the lockers is done in the butcher shop at the rear of the Estes Park Grocery store, where it attracts plenty of attention. Despite the fact that no other locker service is available in the area, Moorehead charges moderate rates, consisting of 3 cents per pound for cutting and wrapping domestic meats or game, and similar rates for vegetable and fruit processing. Several commercial institutions, including restaurants and lodges have also taken advantage of this.

A sign over the walk-in cooler at the rear of the Estes Park Grocery meat market reads "We feature wholesale meats" to draw attention to the locker plant. Many year-round residents are ordering complete sides, quarters, and even whole beef carcasses for economizing on today's high retail meat prices—and it is not unusual for a "summer tourist" to contract for a locker the year around for just this reason.

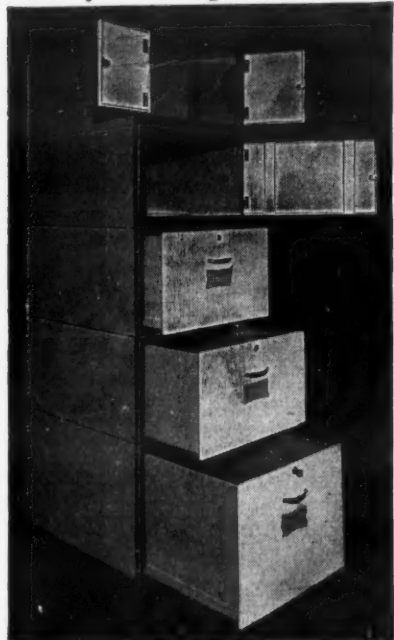
Because of the heavy demand for refrigerated locker service, there has been little or no necessity for advertising, according to Moorehead. Six door-type swinging panels over the store manager's desk contain duplicate keys to all of the lockers in the event a customer loses his, which, naturally, is responsible for much additional traffic into the store.

Moorehead furnishes warm jackets and coats for customers who wish to stay in the locker plant for any length of time, available merely through applying for them at the store.

"We have been careful to keep each function of the locker plant centralized at the store itself," he said, "inasmuch as the larger the amount of traffic we can command, the more sales result. I figure that my grocery sales have been increased about 20%, with an investment of between \$25,000 and \$30,000 for locker plant construction."

Take A Tip From The "Spark-plug" of the Industry

Agricultural Experts report: Meat Shortage—which means high prices—will continue for several years. Beef is nearly 40% under demand. Pig crop uncertain. Sheep—lambs lowest per capita since 1876. Chickens off—Turkeys down 30%. So-o-o-o we recommend building—Locker plants and subplants NOW. We've stuck our necks out before for your benefit and we don't "cringe now" as we still think this is good advice. Service charges can be increased to make Locker operation profitable even with high building costs. People are price and shortage conscious. You save them money no matter what your charges are.



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Pure Ascorbic Acid Improves Storage of Some Frozen Foods

ST. PAUL, Minn.—The frozen foods laboratory of the University of Minnesota has urged Minnesota homemakers to use pure ascorbic acid (crystalline vitamin C) to prevent frozen foods from darkening.

J. D. Winter, head of the frozen food laboratory and Lillian W. Anderson have recommended use of the acid in freezing peaches, apricots, cherries, and oily fish. In the case of fish it gives them longer keeping qualities, according to Winter.

Until now fish such as lake trout could be kept only about three months without turning rancid. With the use of ascorbic acid they may be stored at least eight months with no trouble at all, he said.

It is not necessary, however, to use the acid solution on fish such as pike, bass, or sunfish, he noted.

Oily fish cut in pieces should be dipped in the solution of one-and-one-half ounces of acid per gallon of cold water for five minutes. If the fish are whole, they are frozen first, and then dipped in the cold solution until a glaze forms over them.

He urged the use of aluminum foil or moisture-vapor resistant cellophane to retard drying as fish when cut tend to dry out quickly in storage. Locker paper was not recommended for this purpose.

In the case of frozen fruits, the laboratory experts said 1/4 teaspoon of ascorbic acid to a quart of water should be used for peaches and apricots in addition to three cups of sugar. For cherries the same amount of ascorbic acid plus one teaspoon of citric acid was recommended. Ascorbic acid was also suggested for peaches and apricots previously frozen without it.

Dealer Wins a Free Chicago Vacation In Deepfreeze Contest

CHARLESTON, S. C.—A free airplane trip to Chicago and a week's stay at the Palmer House there as guests of the Deepfreeze division, Motor Products Co., and Cannon Distributing Co. here was awarded to Charles Womack and his wife for winning the distributor's recent "Dealer-Salesman Deepfreeze Cash Prize Campaign," Norman L. Cannon, president, has announced.

Womack is president of the Charlie Womack Co. of Florence, S. C. During his stay in Chicago, he and his wife toured the city's entertainment spots and the sight-seeing attractions. He also spent a day at the Deepfreeze factory.

William and Ed Martin Open New Buffalo Firm

BUFFALO—A new appliance firm, William & Ed Martin, Inc., has been opened at 1236-1238 Seneca St., by William and Ed Martin, featuring a complete line of major appliances. Free souvenirs were awarded at the formal opening.

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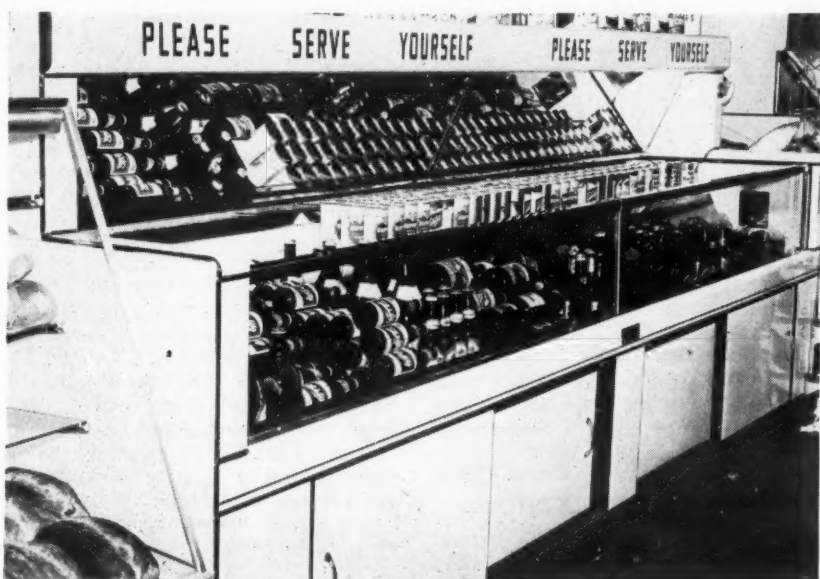
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Two Ways To Improve Bottled Goods Sales



Stores that have installed easily accessible refrigerated displays of bottled beer and other bottled beverages have reported greatly increased sales. This Tyler 12-ft. full-length wall beverage display case is installed in the Rainbow Liquor Store in Rockford, Ill. Note the excellent use of signs on top of the case to attract attention to it.



This self-serve Tyler refrigerated display case with mirrored display arrangement is installed in Ahearn's Food & Liquor Store in Chicago.

Self-Service Cabinet Nets \$32 Per Day From Ice Cream and Frozen Novelties

DENVER — A two-compartment self-service refrigerator, just inside the door of the Dansberry Pharmacy at 14th and Champa Sts. here, is producing additional sales of around \$32 per day, in ice cream, candy, and other refrigerator products, according to James Dansberry, owner.

The refrigerator, a Weber model, has two sliding glass lids, through which customers may see ready-packaged bulk ice cream in a dozen popular flavors, manufactured cylindrical ice cream cartons in pints and quarts, plus frozen candy bars, ice cream sticks, sherbert sticks, and other five-cent delicacies. The latter are kept on the right hand side, while the bulk ice cream is on the left.

Dansberry installed the refrigerator after making an analysis of fountain sales, which disclosed that too much time of dispensers was being tied up in handing out ice cream, five-cent ice cream bars, etc., for the volume sold. Therefore, a few months ago, he put all ice cream and refrigerated delicacy sales on a self-service basis, close to the door, where every customer saw the refrigerator upon entering.

For the first few weeks, it was

necessary to indicate the case whenever customers asked for bulk ice cream, and all of them rapidly "got used to it," according to Dansberry.

Sales volume from the case averages \$15 per day in the downtown drugstore, with another \$16 to \$18 in refrigerated candy, ice cream sticks, sherbert sticks, etc.

With heavy traffic of homeward-bound downtown workers, catching streetcars and buses on the corner in front of the store, the refrigerator has proved a "natural" for convenient buying. In addition to this, the store is located across from the downtown Denver telephone company office, where hundreds of girls on short "reliefs" dash over for an ice cream bar or candy.

"The refrigerator paid for itself almost immediately," Dansberry said.

Allen-Bradley Co. Moves Northern Ohio Office

CLEVELAND—The Allen-Bradley Co., manufacturer of electric motor controls, announces the removal of its northern Ohio district office to 4312 Carnegie Ave. Cleveland. R. J. Roy is district manager.

Reach-In Installation Uncovers Customers For Fancy Beverages

DENVER — A 26-cu. ft. reach-in refrigerator has more than tripled sales of bottled beverages of all types at the W. W. Myer Drugstore on West Colfax here, according to the management.

The reach-in refrigerator has been installed in the left, rear corner of the store, where it backs up a display counter of soft drinks, mixers, and party foods. The box will contain over 40 cases of popular soft drinks in addition to 6-bottle carry-out packages, beer, wines, champagne, etc.

Incidentally, champagne sales, which were to all extents nil previous to the installation, have now become a regular and profitable specialty of the firm.

The face of the refrigerator is done in white, with Thermopane glass windows which permit a view of the contents. Three temperatures are maintained in the refrigerator for making possible various degrees of cold for beer, soft drinks, and wines, all of which require a slightly different temperature.

So much traffic has been developed by the sight of the huge refrigerator during the summer months that it will eventually be necessary to do away with the service counter in front, it was pointed out—thus permitting customers to utilize self-service methods in filling their bottled drink requirements.

Two compressors, one a "standby" power the big refrigerator.

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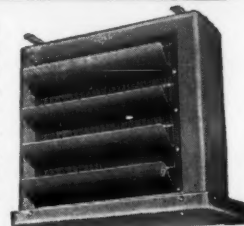
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How To Service Room Air Conditioners (2) Checking & Repairing Refrigeration System

Servicing of room air conditioners can be a profitable business, and just now, after many weeks of continued service, numerous units may require attention. There's still a lot of warm weather ahead yet. On this and the following page is the second instalment of a series on servicing room units, which will apply to most makes. It was prepared from data supplied by Philco Corp. and is published with the latter's permission.

PRELIMINARY CHECKS

The data label on the air conditioner unit and on the motor name plate are sources of valuable information and should always be referred to before starting test procedures.

CONDITIONER TURNED OFF

1. A defective belt is always a possible source of trouble in the refrigerating system.

Molded rubber and fabric "V" belts give long, quiet service if properly adjusted and kept free from oil. If a belt becomes oil-soaked in a spot, the rubber in that spot swells, causing a high spot in the belt which results in noisy operation.

To insure long life and quiet belt operation, the motor pulley and compressor flywheel must be exactly aligned and the belt or belts operated under proper tension. The center line of the pulley and flywheel must be perfectly aligned. With proper tension, a belt should have about $\frac{1}{2}$ in. sag when moderate thumb pressure is applied halfway between the pulley and the flywheel.

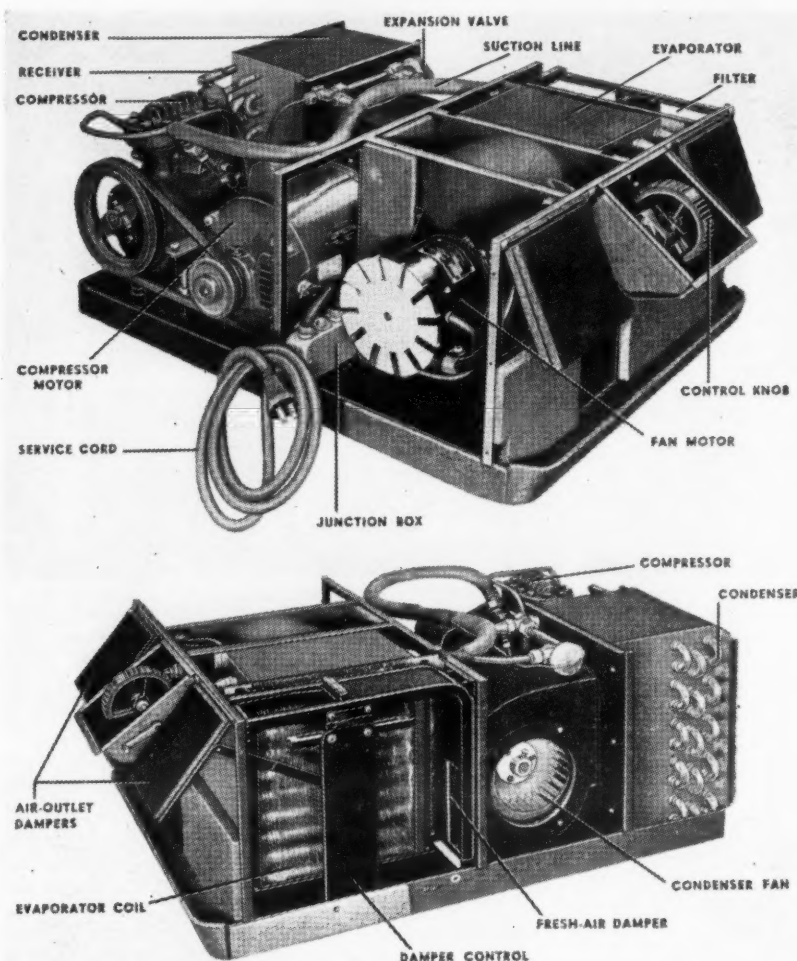
If it is necessary to make belt-

tension adjustments, they should be made at the adjustment studs which position the compressor and its mounting plate. If a belt becomes oil soaked, frayed or split, or irregular because of wear, it should be replaced as outlined below:

- Relieve belt tension.
- Remove and replace belt.
- Check alignment and adjust for proper tension.
- Check the air filter. A dirty or clogged air filter causes loss of ventilation and cooling effect.
- Check for excessive amount of water collected in base of window models. Check installation tilt toward rear.
- An appreciable amount of oil in unit bottom pan indicates the possibility of a leak in the system.
- A dirty condenser or screening results in reduced refrigeration capacity.

A clean condenser is of the utmost importance. In all models, dust and lint may be blown out of the condenser with a small, portable blower, or the blower attachment of a household vacuum cleaner. The cleaning

Fig. 3—Major Parts of Typical Room Unit



air stream should be directed into the condenser in the opposite direction to the normal air stream set up by the unit fan.

A good method of cleaning condensers in the shop is to wash them down thoroughly with a stream of water from a hose.

CONDITIONER TURNED ON

The best operation of the refrigeration system also depends upon the proper function of the electrical and airflow systems. Trouble in the electrical and airflow systems should be corrected before checks are made of the refrigeration system. Fig. 3 shows the location of the major parts of the refrigeration system in window models.

LINE-VOLTAGE CHECK

Check the line voltage as outlined previously.

EVAPORATOR COOLING CHECK

To check the cooling range of the evaporator, refer to the performance tables for the particular model under test. Normal operating data for varying conditions of temperature and humidity are given for each model.

If the evaporator cooling range is greater than the values shown in the performance tables for the model under test, it is probably caused by a restriction of the air path through the evaporator.

The most frequent cause of restricted discharge air is a clogged or dirty filter. Remove the room air filter from the unit. If the openings are clogged with dirt or dust, the filter should be discarded and replaced with a new one. If, however, the filter is clean, look through the evaporator with a flashlight to see whether it is clogged. To clean the evaporator, use a small hand pump to blow out the dirt.

A second cause may be an inoperative or defective room air fan. The fan blade assembly should be checked to make certain that it is clean and securely fastened to the motor shaft, because the fan might be slipping sufficiently to reduce the flow of discharge air. Restricted airflow causes

the evaporator to frost, resulting in loss of air conditioning effects.

A small temperature difference between the discharge air out and room air in, at the unit, may indicate a lack of refrigerating effect. Sufficient refrigerant must pass through the evaporator coil in order to produce its rated cooling capacity. See trouble-analysis chart.

SPECIFIC CHECKS

All parts of the refrigerating system affect the flow of liquid refrigerant into the evaporator coil, so it is necessary to check successive components of the system in order to isolate the cause of failure.

(Continued on next page)

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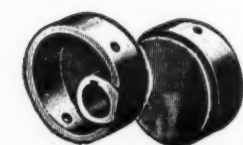
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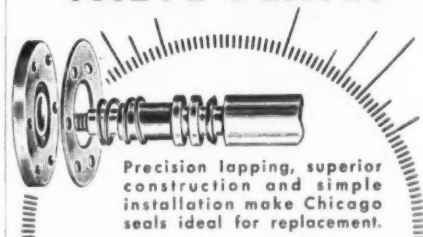


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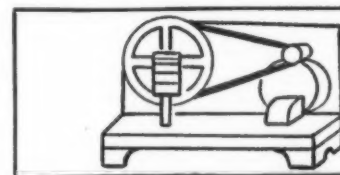
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Careful Checking of System Will Indicate What Parts, If Any, Require Replacement

(Continued from preceding page)

Two different procedures are used when replacing parts in the low side of the system depending on whether or not a shut-off valve is installed in the liquid line.

REPLACING PARTS IN SYSTEMS HAVING NO LIQUID-LINE SHUT-OFF VALVE

The following instructions apply to all parts of the refrigerating system, except the compressor:

1. If the system is not equipped with a liquid-line shut-off valve, it is necessary to purge the entire charge of refrigerant (or pump it into a drum) when replacing parts other than the compressor.

2. After the refrigerant has been removed, any part of the system may be replaced.

Do not leave the system open and exposed to the air any longer than absolutely necessary. The entrance of dirt and moisture from the surrounding atmosphere may result in serious unit trouble and costly parts replacement. Insert corks in the ends of all lines that must remain open for more than a short time.

3. After replacing the defective part, make all tube connections, securely tighten all flare-nut fittings, and replace insulation pieces previously removed.

4. Evacuate the system.

5. Replace the refrigerant in the system.

When working on a system requiring the replacement or repair of parts, it is always good practice to check for leaks after parts are replaced, and before the system is charged to its full capacity. Connect for charging, start the unit, and allow sufficient refrigerant to enter the system so that leak tests may be made as soon as the pressure can be maintained at 100 lbs. or over, with the unit shut down.

6. Check the system for its normal operating characteristics.

REPLACING PARTS IN THE LOW SIDE OF SYSTEMS HAVING A LIQUID-LINE SHUT-OFF VALVE

1. Remove the necessary panels from air conditioner to make the defective part accessible.

2. Turn the liquid-line shut-off valve fully clockwise.

3. Open the suction and discharge valves fully counterclockwise.

4. Install suction and discharge gauges.

5. Operate the compressor until the suction gauge reads 20 in. or more. Watch the high-side pressure; it may become excessively high if the system has an overcharge of refrigerant.

6. Close the suction and discharge service valves when the low side is evacuated.

7. Disconnect and remove the defective part.

8. Install the new part; make the necessary connections.

9. Remove the discharge gauge;

leave the gauge port open to evacuate the low side.

10. Operate the compressor until the suction gauge reads 20 in. or more, and reinstall the discharge gauge.

11. Open all three service valves.

12. Check the system for leaks.

13. Replace the panels and check the system for normal operating characteristics.

14. Remove the gauges.

EXPANSION VALVE

The thermostatic expansion valve is designed to automatically control the flow of liquid refrigerant entering the evaporator coil. The valve mechanism must operate freely and without restriction in order to allow the proper amount of refrigerant to enter the evaporator.

Faulty operation may be due to mechanically frozen internal parts, clogged strainer or valve orifice, or failure of the regulating feeler bulb which operates the needle valve. Failure of any part of the expansion valve will affect the refrigerating capacity of the unit.

If the expansion valve is clogged or mechanically frozen in a partly open position, the capacity of the unit will be affected because the flow of refrigerant is restricted. This condition is indicated by low suction pressure.

If the valve is mechanically frozen in an open position, liquid refrigerant may flow through the entire system, causing an excessively cold suction line, a high suction pressure, pounding in the compressor, and a cold compressor head.

CHECKING EXPANSION VALVE

The expansion valve used in Philco air conditioners is the non-adjustable type. It is set at the factory for proper operation and must be replaced if defective. Failure of the expansion valve to operate properly may be caused by:

1. Restricted refrigerant flow caused by a defect or an obstruction (sticking or dirt lodged in the valve seat) is indicated by low suction pressure.

It is difficult to determine from the external appearance of a thermostatic expansion valve whether an inside obstruction is caused by sticking of the valve mechanism, or whether the orifice or internal parts are clogged with scale or dirt. Either condition may cause frosting on the valve body.

Valve frosting is also caused by a shortage of refrigerant. A dirty or clogged strainer at the valve entrance connection is the most frequent source of trouble. If this condition exists, the strainer can be either replaced or cleaned and reinstalled.

Valve restrictions may sometimes be cleared by tapping the valve body with a hammer. If this action fails to clear the valve or if the restriction reoccurs, it is necessary to remove the defective assembly and make replacement with a new expansion valve.

2. Failure of the valve to close for

reasons similar to those in 1 above, allows an excessive amount of refrigerant to flow through the valve, and is indicated by high suction pressure.

3. Failure of the feeler line and bulb may be caused by a loss of their refrigerant charge and is indicated by a low suction pressure.

CHECKING FEELER LINE AND BULB

1. Install a suction gauge at the suction service valve of the compressor.

2. Disconnect the feeler bulb from the suction line. Do not kink the feeler line. Operate the compressor and hold the feeler bulb in the hand a short time; the heat from the hand should cause the valve to open and allow liquid refrigerant to enter the evaporator, causing an increased suction pressure.

If the feeler bulb is held in the hand too long, severe pounding may be noted in the compressor, because an excessive amount of liquid refrigerant is being pumped by the compressor. Conversely, placing the feeler bulb in ice water should close the valve, which will decrease the suction pressure. If these tests have little or no effect on the suction pressure readings, the expansion valve is defective and must be replaced.

REPLACING EXPANSION VALVE

1. Remove the necessary panels from the air conditioner to make the expansion valve and feeler bulb clamp accessible.

2. When preparing to open the system, follow one of the procedures outlined previously, depending upon whether or not a shut-off valve is installed in the liquid line.

3. Remove the feeler bulb from the suction line by removing the securing tape and the clamp assembly.

4. Disconnect flare nut connections and remove the expansion valve. If unit has an expansion valve not equipped with flare thread connections, the lines to the valve must be cut and flared to accommodate installation of the replacement valve assembly.

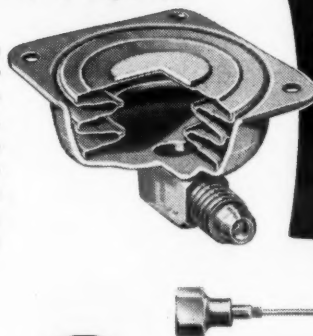
5. Install the new valve, make the flare connections, clamp the feeler bulb to the suction line in the same position as the original bulb and re-insulate with tape.

6. After the system is closed, evacuate all parts that had been opened to the air. Complete the operation started under step 2 above to restore normal operating conditions.

(To Be Continued)

Another Ranco "FIRST"

New, and exclusively Ranco, the beryllium copper power element marks another Ranco development that means greater customer satisfaction. The maximum sensitivity and positive action of this new element permits temperature accuracy within new lower limits. Designed and produced entirely by Ranco refrigeration specialists, it's one more reason why it pays to check with Ranco first.



THE
BERYLLIUM
COPPER
Power Element
Used in all
Ranco Controls

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Ranco FIRST

- Specialists in Refrigeration
- More Ranco Controls in Use
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Ranco Inc.
COLUMBUS 1, OHIO



World's Largest Manufacturers of REFRIGERATION CONTROLS



SUMMER
and
SPRING

WINTER
and
FALL

Sell

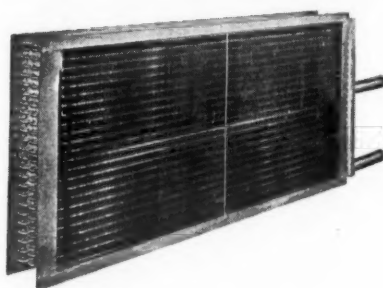
GOVERNNAIR

ALL YEAR 'ROUND

Your sales don't have to "drop off" at the end of every summer season. Sell Governair All year 'round and keep that sales curve "up" during slack periods.

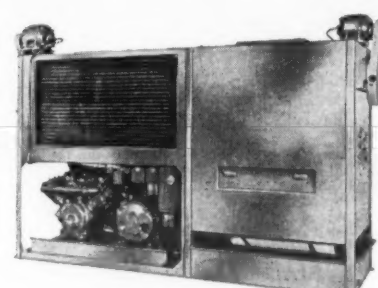
Sell blast coils for converting our packaged unit to year 'round air conditioning. Sell completely packaged air conditioners to those who didn't order early enough this season. Sell unit coolers for efficient refrigeration.

Yes, keep your sales average HIGH — sell Governair All year 'round. Clip out coupon below and mail today.



BLAST COILS FOR YEAR
'ROUND HEATING & COOLING

Governair blast coils for efficient heating or cooling take the lead for year 'round business! Smart operators are selling these to convert our completely packaged air conditioners for year 'round comfort. Others use them for cooling or heating in numerous other ways. Made of copper tubing and copper fins spaced according to temperatures involved. All joints are securely welded and a thorough pressure test is made before each unit's delivery. Check into your potential sales of these versatile coils right away! Sell Governair all year 'round.



COMPLETELY
PACKAGED AIR CONDITIONERS
FOR YEAR 'ROUND COMFORT

This is the famous Governair completely packaged air conditioner which has made air conditioning history! Expertly designed for efficient operation, easy installation and high quality performance this air conditioning unit is known as the greatest VALUE IN THE FIELD!

It can be quickly utilized for year-round air conditioning to provide clean, warm air by connecting a Governair heating coil to the system. Owners of the unit are your immediate prospects for fall and winter business. Sell them also to those "hot" prospects who didn't order early enough this year. Sell Governair all year 'round!

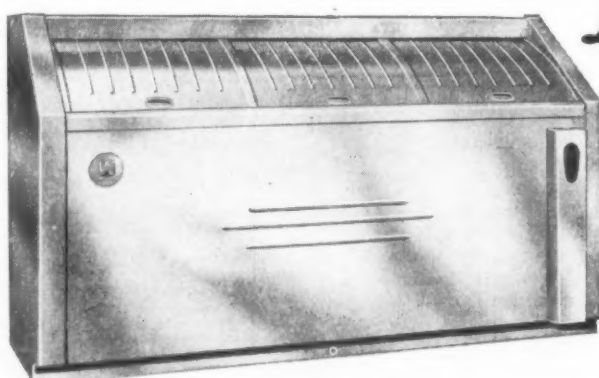


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YEAR 'ROUND REFRIGERATION

The Governair floor type unit cooler needs no introduction! It is compactly designed for operation in cold storage rooms to produce temperatures below or above 33 degrees. The units may be furnished with either vertical or horizontal air delivery as required. Available in a wide range of sizes to provide air delivery from 1,600 to 20,000 CFM.

Particularly desirable for its efficiency and mobility, this unit was highly praised and its performance was proven in world-wide use by the Army and Navy during the war. It always does a capable year-round refrigeration job, so it's a "natural" sales builder for year-round business. Sell Governair all year 'round!

The Streamlined Stainless Steel



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STORAGE
BOTTLE
COOLER

Featuring The Rollback WELL INSULATED LIDS

The designed companion piece of the New La Crosse Ice Cube Maker. Adjustable wire partitions and shelf offers greater capacity—Sturdily constructed of heavy rust-resisting metal—Recessed base—Sizes 4-6-8-10 ft. Also available with high bake finish.



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☐ Governair Blast Coils ☐ Governair Completely Packaged Air Conditioners

☐ Governair Unit Coolers

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PIONEERS IN THE MANUFACTURE OF COMPLETELY PACKAGED AIR-CONDITIONERS

The KEY to AIR CONDITIONING

One of a series from

by James J. LaSalvia

Amount of Air Through Cooling Coils

THE BY-PASS METHOD

Any comfort cooling air conditioning system can be made into a by-pass system if so desired.

The by-pass system is most efficient when used with an air washer job, using a dewpoint control. In this type of system the air leaving the air washer can be made to come out 100% saturated.

The air washer system is generally used on very large jobs, but is not applicable to the smaller jobs, which this discussion is concerned with, so therefore, it needs no more consideration than to recognize its possibilities.

The by-pass method as described here refers entirely to by-passing around cooling coils.

This method is very effective with water-cooling coils. As the coil temperature remains constant, the air-flow can be varied between the by-pass and coils to accomplish proper sensible and latent extraction according to the demand, with no chance of icing the cooling coils.

When the by-pass method is used with direct expansion coils, it is

necessary to set the by-pass damper, so that the by-pass will not rob all of the air from the cooling coils. The by-pass damper should never be completely open, but should be adjusted so that in its full open position, the velocity of the air through the cooling coil will never be lower than 300 ft./min. Otherwise the coils may ice up and cause trouble. The by-pass damper may close entirely.

TYPES OF BY-PASSES

By-passes may be of the following types:

1. Manual control.
2. Automatic control.

The manual control type is one which, once set by hand for the amount of air to be by-passed, is locked in position and the same amount will pass through the whole cooling season. (See Fig. 2.)

This type is satisfactory on high outside conditions, but generally not satisfactory on mild outside conditions.

The automatic control type is one where the amount of air passing

through the by-pass is controlled automatically to increase or decrease the amount of air between the by-pass and the cooling coils to meet the varying load in the space.

This type is very satisfactory during the whole cooling season. (See Fig. 3.)

This type is recommended for any system where possible, and it is especially recommended where the by-pass method is essential.

TYPES OF AIR PASSING THROUGH THE BY-PASS

By-passes may be provided to pass various kinds of air mixtures around the coils. The two most commonly used are:

1. Mixtures of outside and recirculated air (see Fig. 2).
2. All recirculated air (see Fig. 3).

SATURATION CHART

In order to determine the amount of air which is to pass through the by-pass and cooling coils, one must find first, the saturation temperature at which the air would have to leave the cooling coils if the air was saturated.

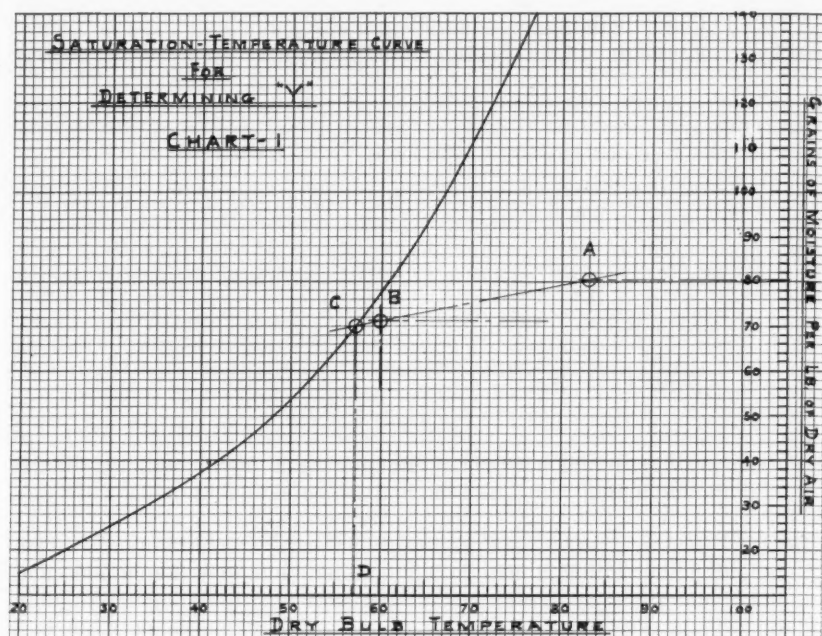
We shall designate this saturation temperature as "Y."

Chart 1 can be used to determine the saturation temperature "Y" graphically.

The curve has been plotted with d.b. temperatures against grains of moisture per pound of air saturated at the same temperature.

For example, reading from bottom on the Chart 1, a d.b. temperature of 60°, we find that the grains of moisture per pound of 60° saturated air is 77.3. (See psychrometric chart for 60° d.p. temperature.)

Chart 1—Saturation-Temperature Relationships



In order to determine "Y" by this method, the following information is required:

1. C.f.m., total air.
2. (a) D.b. temperature of air mixture entering the cooling coils.
(b) Grains/lb. of air mixture entering the cooling coils.
3. (a) D.b. temperature of air which must enter the fan.
(b) Grains/lb. of air which must enter the fan.

To illustrate let us take the heat gain as worked out in the earlier section "Cooling Load."

1. Total air is 8,600 c.f.m. as figured in the heat gain.

2. (a) D.b. temperature of air mixture entering the cooling coils is found as follows:

Total air 8,600 c.f.m. = 100.0%
Outside air 1,700 c.f.m. = 19.8%
Recirculated air 6,900 c.f.m. = 80.2%
(95° d.b. x 19.8%) + (80° d.b. x 80.2%) = 83.0° d.b. temperature.

- (b) Grains/lb. of air mixture entering the cooling coils is found as follows:

(75° w.b. x 19.8%) + (67° w.b. x 80.2%) = 68.6° w.b. temperature.

Referring d.b. of 83.0° and w.b. of 68.6° to the psychrometric chart, the dewpoint is 61.0° F.

For the dewpoint of 61.0° F. we find the grains per pound to be 80.2. This becomes point "A" on the chart.

3. (a) D.b. temperature of air which must enter the fan is found as follows:

80° d.b. — (room)
(F) 188,504 B.t.u./hour x .925

8,600 c.f.m.
59.8° d.b. temperature.

- (b) Grains/lb. in air which must enter the fan is found as follows:

77.3 Grs./lb. —
(I) 33,840 B.t.u./hour x 1.44

8,600 c.f.m.
71.6 Grains/lb.

71.6 Grains/lb. is equivalent to a d.b. temperature of 57.9° F.

This becomes point "B" on the chart.

From 59.8° d.b. located on the bottom of chart, proceed upward until it meets the 71.6 Grains/lb. line from the right of chart. The place where these two lines meet becomes point "B."

Having located points "A" and "B" on the chart, draw a straight line from point "A" through point "B" and extend the line to the saturation curve to point "C."

From point "C" draw a straight line down to the temperature line to point "D."

The temperature at point "D" is known as "Y," and in this case is 57.0° F.

Therefore the saturation temperature or "Y" is 57.0° F.

If the air came out saturated, the d.b., w.b., and d.p. temperatures would all be 57.0° F. and the relative humidity 100%.

In working with cooling coils for comfort cooling, the air leaving the coils will not be saturated. The air will leave between 85% and 95% saturated, so if we assume 90% saturation, that point will fit practically all problems.

It is necessary then to use the above "Y" temperature of 57.0° F. as

the wet bulb temperature. By referring to the psychrometric chart, and using 57.0° w.b. and 90% r.h., the d.b. temperature will be 58.6° F. and the d.p. temperature will be 56.0° F.

Therefore the temperatures and relative humidity which must leave the coils are:

D.b. temperature 58.6° F.
W.b. temperature 57.0° F.
D.p. temperature 56.0° F.
R.h. 90.0%

AMOUNT OF AIR THROUGH BY-PASS AND COOLING COILS

To determine the amount of air which must be passed through the by-pass and the cooling coils, the following formula is used:

Total sensible heat (H) x .925

d.b. enter coil — d.b. leaving coil
c.f.m. which must pass through coils.
(H) 216,044 B.t.u./hour x .925

83.0° — 58.6°
8,200 c.f.m.

The air which must pass through the cooling coils is 8,200 c.f.m. Then: 8,600 c.f.m. — 8,200 c.f.m. = 400 c.f.m.

The air which must pass through the by-pass is 400 c.f.m.

8,200 c.f.m. = 95% of the air through the coils.

400 c.f.m. = 5% of the air through the by-pass.

Therefore: Temperatures of the air mixture entering the coils are:

D.b. temperature 83.0° F.
W.b. temperature 68.6° F.
D.p. temperature 61.0° F.

Temperatures of the air which must leave the coils are:

D.b. temperature 58.6° F.
W.b. temperature 57.0° F.
D.p. temperature 56.0° F.

It is obvious if a by-pass system is used that the air will have to leave the coils at a colder temperature than if all of the air were passing through the coils.

All problems using the by-pass method should be figured as shown above to arrive at the proper coil selection.

Chart 1 will also show, if the point "B" falls above the saturation curve, that not enough total air is being used. In such cases increase the air volume until point "B" is slightly under the saturation curve.

If the volume of air cannot be increased, then rehumidification is required. This type of system is rarely encountered in comfort cooling and needs no more consideration than to recognize its possibilities.

Lipman
AUTOMATIC REFRIGERATION

For all types of refrigeration installations. Available in sizes ranging from 1/4 thru 40 H.P.

LIPMAN units are available for use with Methyl Chloride, Ammonia and Freon 12 refrigerants. Recognized for outstanding economy and dependability, the name of LIPMAN has become the "buy" word in the commercial refrigeration field.

GENERAL REFRIGERATION
YATES-AMERICAN MACHINE CO., Racine, Wisconsin



Worthington SCY-5 00 Series Self-contained Air-Conditioner equipped with Allen-Bradley Bulletin 709—5 hp Solenoid Motor Starter.

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AIR-CONDITIONERS

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Trouble-Free Motor Controls

ALLEN-BRADLEY STARTERS ARE TROUBLE FREE. Only one moving part. No pivots, pins, or bearings to corrode or stick . . . no jumpers to break. You install them . . . and forget them!

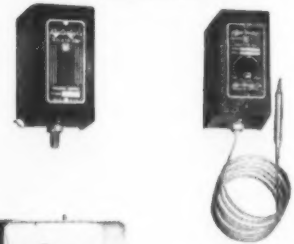
NO CONTACT MAINTENANCE. Allen-Bradley patented silver alloy contacts never need cleaning, filing, or dressing.

DEPENDABLE OVERLOAD RELAYS. Allen-Bradley thermal relays are accurate and dependable even after long service.

The A-B trademark stands for millions of trouble-free operations.
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ALLEN-BRADLEY AIR-CONDITIONING AND REFRIGERATION CONTROLS

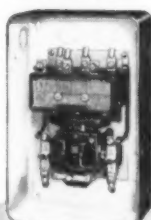
PRESSURE AND TEMPERATURE CONTROLS



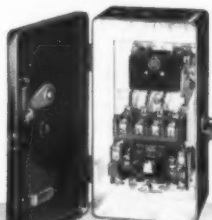
MANUAL STARTER



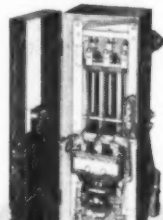
AUTOMATIC STARTER



COMBINATION STARTER



HEAVY COMPRESSION STARTER



High-pressure cutout and motor starter in same enclosure. Temperature controls can be mounted by motor starter in same way.

ALLEN-BRADLEY SOLENOID MOTOR CONTROL

New Entry In Table-Top Model Field



Full length door, and slightly larger capacity are featured in the new 1949 model Freeze-O-Matic, Jr. lowboy refrigerator recently introduced by the Acme-National Refrigeration Co., Inc. in Brooklyn. Capacity is nearly 4 cu. ft. The unit is expected to retail at \$199.50.

Dry Ice Firms Hit --

(Concluded from Page 1, Column 4)

of said respondents solid carbon dioxide for the purpose of manufacturing solid carbon dioxide therefrom.

"4. Establishing, fixing, or maintaining prices, terms, conditions of sale, or charges for services in connection with the sale of solid or liquid carbon dioxide, or adhering to any prices, terms, conditions of sale, or service charges so fixed or maintained.

"5. Preventing the sale of, or refusing to sell, solid carbon dioxide to owners or lessees of converters or liquefiers for conversion into liquid carbon dioxide.

"6. Offering to sell or selling solid carbon dioxide to owners or lessees of converters or liquefiers at prices in excess of those offered or charged purchasers of comparable quantities for other uses.

"7. Allocating, reserving, or limiting certain territorial areas to the exclusive use of any one or more of them in the sale and distribution of solid or liquid carbon dioxide.

"8. Owning or controlling stock or other share capital of any corporation which owns or controls patent rights or patent applications relating to the manufacture of solid carbon dioxide, or in any other manner controlling such patents, patent rights, or patent applications whereby competing manufacturers or prospective manufacturers of solid carbon dioxide are hindered or prevented from continuing in or entering into the manufacture of said product."

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Marlo

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MARLO-HEAT TRANSFER
Since 1925

Freeze-O-Matic --

(Concluded from Page 1, Column 2)

It measures 36 in. high, 24 in. wide, and 22½ in. deep, and weighs 160 lbs. net. The cabinet is made of heavy gauge steel vapor sealed and designed for minimum heat loss, the company states. Finish is three coats of baked white Dulux over rust-proofing.

Full-length door and kick-plate plus modern chrome heavy-duty hardware are other features. Condensing unit is a ½-hp. Tecumseh hermetic. The formica top continues in the new model.

Besides the standard line, a variety of custom colors, including synthetic mahogany and walnut wood finishes will be available on a 30-day basis. Some 5% of sales in New York City are synthetic wood finished models, which are largely being installed in offices.

Better Business Bureau --

(Concluded from Page 1, Column 3)

mercial and industrial establishments makes this an important definition.

"Authorities on the subject—architects, heating and ventilating engineers, and manufacturers agree, and the Federal Trade Commission has ruled that—

"Air conditioning is the control, by a mechanical device, of the temperature, humidity, and circulation of the air within a structure.

"The non-performance of any one of these three basic functions takes equipment out of the air conditioning class, according to numerous rulings of the Federal Trade Commission. (See FTC Stipulations 1467, 1772, 1883, 2450, and Docket 3974.)

"Air conditioning equipment for summer comfort cools, dehumidifies, and circulates the air.

"Winter air conditioning equipment warms, humidifies, and circulates the air.

"Year-round air conditioning equipment combines the functions of both summer and winter air conditioning equipment.

"Air conditioning equipment may do more than control the temperature, humidity, and movement of air. It may, for example, filter the air to remove dust, bacteria, and pollens. However, the three functions of controlling temperature, humidity, and movement are the functions recognized by trade and government authorities as MINIMUM FUNCTIONS of air conditioning equipment.

"The bureau recommends that if equipment is advertised as providing 'air conditioning' or as being an 'air conditioner,' it offer, as a minimum, the control of the temperature, humidity, and movement of air within an enclosed space."

Are You Looking for An Easy Way
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Solve Your Problem with the New
ROLL-OR-KARI Dual Trucks

Patented Step-On-Lift • Folding Handles
Capacity 1000 Lbs. • Shipping Weight 40 Lbs.

WRITE TODAY

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MANUFACTURERS
ZUMBROTA • MINNESOTA

Pennsylvania Sales --

(Concluded from Page 1, Column 4)

July, 1947:	July 1948	June 1948	July 1947
Appliance			
Home and			
Farm Freezers ...	260	267	206
Refrigerators ...	2,732	2,717	1,905
Room Coolers ...	48	20	46
Dishwashers ...	45	39	21
Garbage Disposers ...	38	49	19
Ranges ...	998	1,006	564
Clothes Driers ...	20	12	10
Ironers ...	260	247	298
Automatic Washers... 334	333	344	
Conventional			
Washers ...	1,675	1,692	1,446
Water Heaters ...	529	515	372

Wanted—Sales or
Manufacturers' Representatives

Sales or manufacturers' representatives wanted in the following states: New Jersey, Eastern Pennsylvania, Eastern New York, Maryland, Ohio, Indiana, Kentucky, Tennessee, Michigan, Illinois, Wisconsin and Minnesota. Products are reach-in and walk-in refrigerators.

Box 2923

Air Conditioning & Refrigeration News

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Offers many advantages

WALK-IN COOLERS & STORAGE ROOMS
REACH-IN FREEZERS

30 Cu. Ft., 60 Cu. Ft. and Larger

BUILT FOR QUALITY AND PERFORMANCE

DESIGNED FOR SPEEDY ASSEMBLY-ROD METHOD

BUILT IN SMALL SECTIONS for portability through small doorways and basements—Interior & exterior aluminum—floor galvanized.

SIZED FOR EVERY NEED—easy to assemble—move or enlarge—Locate door any side.

SECTIONS PREFITTED—Rubber gasket mounted on each panel to assure leak-proof fit.

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834-850 N. Sixth Street,
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Manufacturers of quality built beverage coolers, beer precoolers, dispensers, low temperature walk-in coolers and other items.

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with more shelf area per cubic foot

25 CU. FT. REACH-IN

Model RI-25CP self-contained—available with 6 tray ice-cube maker or low-velocity, high-humidity blower; approved 3-inch thick, sealed insulation throughout.

- 28.3 SQ. FT. OF SHELF AREA—with adjustable, heavy-plated wire shelves
- STAINLESS STEEL LINING—assures lifetime durability, easy cleaning
- HIGH BAKED DULUX FINISH—on bonderized, rust-resistant auto body steel
- MODERN RECESSED BASE—for ventilation, easier access and cleaning

Available in these
favorite capacities
... 25-34-44 cu. ft.

United Reach-ins, produced in the most functional sizes, combine features that make them ideal for restaurants, cafes, sandwich shops, soda fountains, hospitals, institutions, groceries and delicatessens ... in fact, United Reach-ins—like the complete United line—are designed and built to answer every commercial refrigeration need.



34 CU. FT. REACH-IN

Remote or self-contained with ice-cube maker or blower cooler; 33.7 cu. ft. gross capacity; glass doors or plain doors. Adjustable, heavy-plated wire shelves. Includes all United's basic construction features.

44 CU. FT. REACH-IN

Remote only, with ice-cube maker or low-velocity, high-humidity blower cooler, glass or plain doors. 42.5 sq. ft. of shelf area. Adjustable, heavy-plated wire shelves. Includes all United's basic construction features.

United

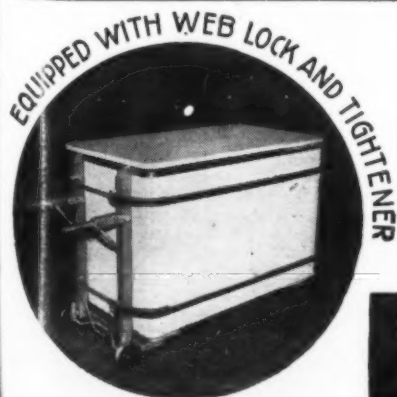
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Condensing Units
These Are NEW Units, Direct
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Sell the name
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HEAT EXCHANGERS
LIQUID flows inside the spiral corrugations
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Save time and energy... order from our new catalog. Efficient
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stocks complete from our stocks. Wholesale only.

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Liberal Deferments Seen Under Draft Procedure

WASHINGTON, D. C. — Actual
drafting of 19 to 25-year-old men is
expected to begin around Nov. 1
under the Selective Service Act.

At the present time local draft
boards are preparing to mail classifica-
tion questionnaires to all single,
non-father, non-veteran registrants
by Sept. 7, with the registration
scheduled to be completed by Sept. 16.

Married men, most farmers, men
with dependents, and various others
have been specifically exempted by
Presidential order.

Deferment because of occupation is
provided for, and can be granted by
local boards, but President Truman
has specified that those receiving
such exemption must be engaged in
activities which are "necessary to the
maintenance of the national health,
safety, or interest" but must also be
irreplaceable.

Based on experience in the past
war, the refrigeration industry will
more than likely qualify on the
"national health, safety, and interest"
score, but the major question will be
whether the individuals are "irre-
placeable."

In general, the draft procedure will
follow the pattern of World War II
with classifications running from 1-A
(available for military service) down
to IV-F (physically, mentally, or
morally unfit).

Occupational deferments, which
will be effective for one year instead
of six months as in World War II,
will be classed as II-A except for
agricultural deferments.

Despite the rather strong words of
President Truman, the draft can be
expected to have little effect on the
civilian manpower situation, industry
has been assured by Maj. Gen. Lewis
B. Hershey, selective service director.

As long as the armed forces find
it unnecessary to use the selective
service system for more than a small
fraction of their needs, local draft
boards are expected to give a liberal
interpretation to occupational deferments.

Persons interested in obtaining
deferments for registrants are per-
mitted to write to local draft boards.
Boards for handling appeals from
local board decisions will be set up,
and there will also be a National
Selective Service Appeal Board estab-
lished to handle final appeals to the
President.

A. O. Smith Authorizes 200 Service Stations

CHICAGO — The Product Service
Division of the A. O. Smith Corp.
announces that it has more than 200
authorized dealer service stations
across the nation to give the fastest
service possible on all of its Smith-
way motors.

It is part of a plan started more
than a year ago in which the
Product Service Division established
three factory warehouse and service
branches—Newark, N. J., Chicago,
and Los Angeles—to give 24-hour
"off the shelf" service on such
Smithway products as water heaters,
liquid gas systems, vertical turbine
pumps, stokers, and Burkey water
heaters and heating equipment.

Thermostatic Valve Talk Planned for Detroit RSE

DETROIT—Application and service
problems involving thermostatic
expansion valves will be discussed in
detail by George Clark, head of the
Detroit Air Conditioning Institute,
before members of the Greater Det-
roit Chapter, Refrigeration Service
Engineers Society, at 7:30 p.m.
Thursday, Sept. 2, at the Rackham
building here.

CLASSIFIED ADVERTISING

RATES for "Positions Wanted" \$2.50
per insertion 50 words or under. 5¢ ea.
additional word.
RATES for all other classifications \$5.00
per insertion 50 words or under. 10¢ ea.
additional word.
ADVERTISEMENTS set in usual classi-
fied style. Box addresses count as five
words, other addresses by actual word
count. Please send payment with order.

POSITIONS WANTED

EXTENSIVE 14 year background in
refrigeration problems. Wide experience
includes engineering design, product de-
velopment, laboratory research and field
applications. Thorough knowledge of ap-
plication problems involving condensing
units, evaporators and controls includes
4 refrigerants. Familiar with laboratory
design and instrumentation also ASRE
commercial code testing. BOX 2847, Air
Conditioning & Refrigeration News.

SERVICE MAN, 11 years experience all
types commercial, industrial and air
conditioning. 5 years as service manager for
largest service company in midwestern
city. One year as manufacturer's service
representative. Plenty low temperature
experience. Prefer to locate in west or
southwest as manufacturer's representative.
BOX 2909 Air Conditioning & Refrigeration
News.

AVAILABLE ON 30 day notice—Young
commercial refrigeration engineer with
pleasing personality capable of handling
service department, either locally or
nationally, or field representative for
manufacturer. Wide field experience makes
up for lack of engineering degree. Desires
position where ability and aggressiveness
brings advancements and compensations.
Write BOX 2913, Air Conditioning &
Refrigeration News.

EXPERIENCED COMMERCIAL and air
conditioning installation and service man.
Now in charge of installation and service
dept. Twenty-four years experience on
all types refrigeration and air condition-
ing equipment to 150 H.P. Must make
change warm climate due to wife's health.
BOX 2914, Air Conditioning & Refrigeration
News.

REFRIGERATION SERVICE or sales, has
had 23 years active experience in the re-
frigeration industry in the capacity of
service, commercial sales and operation of
own business for past 17 years. Am a
member of RSES, NARC, and ASRE.
Must locate in Los Angeles area shortly
after first of the year. Will consider
proposition from commercial sales or job-
ber outlets. BOX 2920 Air Conditioning &
Refrigeration News.

REFRIGERATION ENGINEER and sales-
man desires contact with national organi-
zation for sales representation in Western
Washington territory. Twelve years heat-
ing and refrigeration experience, consist-
ing of operating, maintenance, service, and
selling. Write BOX 2921 Air Conditioning &
Refrigeration News.

SALES ENGINEER desires connection
with a manufacturer or distributor oper-
ating in metropolitan New York territory.
Background—past five years in air condi-
tioning, selling, estimating & laying out
own work; six years previous to war—
dealer contact man, apartment house
sales manager and sales promotion for
distributor in New York City handling
nationally known brand of household re-
frigeration, gas and electric ranges &
complete line metal kitchen equipment.
Age, 48 years. BOX 2922 Air Conditioning
& Refrigeration News.

POSITIONS AVAILABLE

SALESMEN: AIR conditioning, commer-
cial refrigeration, ice cream and custard
freezers. Top national lines. Men inter-
ested in over \$10,000 annually. DRESCO
REFRIGERATION COMPANY, 4404 Wood-
ward Avenue, Detroit 1, Michigan.

WANTED MANUFACTURER'S re-
presentative for air conditioning firm selling
to dealers since 1937. Commission and
bonus. Territory open in middle-west,
south and southwest. TEMP-CONTROL,
INC., 208 E. State St., Peoria 2, Illinois.

SALES OPPORTUNITY for qualified air
conditioning and refrigeration salesman.
Well established firm. Southern Cali-
fornia. State age, experience and qualifi-
cations in detail. BOX 2894 Air Condi-
tioning & Refrigeration News.

SALES ENGINEER—Prominent manu-
facturer of complete line of nationally
known air conditioning equipment has
position for qualified sales engineer. This
is excellent opportunity for capable man
interested in a travelling position and who
has a proven record in sales, management,
application engineering and handling
dealers and distributors. In reply give
age and full details of background.
BOX 2902 Air Conditioning & Refrigeration
News.

MANUFACTURER'S REPRESENTATIVE
for midwestern manufacturer complete
line display cases, walk-in coolers and
other commercial refrigerated equipment.
Territories: New England states; Eastern;
and Midwest. BOX 2903, Air Condi-
tioning & Refrigeration News.

DISTRICT MANAGERS—South-East and
Mid-West territory open for aggressive
sales representatives with a nationally
known manufacturer of air conditioning
units, condensing unit, heating & cooling
coils. Experience in air conditioning
sales and application engineering with
national manufacturer desired. BOX 2904
Air Conditioning & Refrigeration News.

DESIGN ENGINEER—we need an experi-
enced man thoroughly familiar with design
of commercial refrigerated store fixtures.
We are a large manufacturer in the New
York area catering to the super-market
trade. To the right man we offer an
attractive proposition. Give full details
including references. BOX 2915, Air Con-
ditioning & Refrigeration News.

MANUFACTURER'S REPRESENTATIVE
—Some territories still open for manufac-

turer's representative to handle a com-
plete line of air conditioning package
units which have won national acceptance.
Write complete details of your present
operation and background. BOX 2905, Air
Conditioning & Refrigeration News.

SALES ENGINEER wanted by manu-
facturer of air conditioning and refrigeration
accessories, to cover Ohio territory. Call
on jobbers and manufacturers. Extensive
travel and car required. Compensation
includes salary, commission, expenses,
profit sharing, insurance, pension plan.
Dayton or Cleveland resident preferred.
BOX 2916, Air Conditioning & Refrigeration
News.

SALES REPRESENTATIVES wanted for
nationally known manufacturer of refrig-
eration cooling units, coils, and heat
converters. We have open territories for
experienced men who are now selling
other lines to the wholesaler. Write for
exclusive territory. BOX 2924, Air Condi-
tioning & Refrigeration News.

EQUIPMENT FOR SALE

UNIT COOLER closeout—All popular sizes
of nationally known manufacturer in
original crates. 5300 Btu (12" fan)—\$58;
7500 Btu (12" fan)—\$69; 9600 Btu (16"
fan)—\$84; 12,750 Btu (16" fan)—\$97; 15,200
Btu (16" fan)—\$114. (Ratings at 15° td).
ABBEY REFRIGERATION EQUIPMENT
CO., INC., 56 Court Street, Brooklyn 2,
N. Y. Ulster 5-6960.

RECONDITIONED ELECTRIC refrigera-
tors. Immediate delivery. All standard
makes. Fully guaranteed. Wholesale only
from \$49.50 up. Also large stock of "as-is"
refrigerators from \$20 up. We buy trade-
ins. APPLIANCE PRODUCTION CORP.,
59 Crosby St., NY 12, NY.

SEALED UNITS rebuilt and exchanged.
Prompt service on Coldspot (sealed &
semi-sealed), Chieftain, Gale, Tecumseh,
Norge and many others. One year guar-
antee. Write for price list and shipping
instructions. BRIGHTON, 16640 Log
Cabin, Detroit 3, Mich.

FOR SALE—less than cost! Weber—
roll-a-door cabinets: 7—20 cu. ft.—glass
doors all stainless steel with superstruc-
tures for two. 1—20 cu. ft. white with
glass doors. 7—8 cu. ft. white, 2 with
glass doors & superstructures. 1—12 cu.
ft. white with glass doors. 1—4 cu. ft.
white. 2—"Frozel" open type display
cases, standard temperature. CATARACT
ICE CO., 821 Cedar Ave., Niagara
Falls, N. Y.

SECTIONAL WALK-IN coolers delivered
and installed within 60 miles of New York
City \$1.25 per square foot. 4" fiberglass,
killed dried fir front, seasoned odorless
spruce interior, N. C. pine floor, oak trim
door, sponge rubber gasket. Heavy duty
bright chrome hardware, diamond plate
saddle. One week delivery. COOLER
KING MFG. CO., 6013 13 Av., Bklyn., N. Y.

FOR SALE—Bargain—1500 Standard steel
lockers assembled, size 18" x 30", slightly
used but guaranteed like new, white
enamel, black trim. Door type worth
\$8.00; price \$3.00 each. Drawer type worth
\$12.00; price \$4.50 each. Immediate ship-
ment. If you need lockers, order now,
why pay more? Write, wire or phone
THE CONNECTICUT ICE MACHINE
CO., INC., South Norwalk, Connecticut.

GOVERNMENT SURPLUS 1/2, 2, 3, 5,
7 1/2 HP Carrier or York compressors with
marine or regular condenser receivers AC
or DC motors. Ice makers 1 ton capacity,
cold storage doors complete with frames
opening 57" x 34". New Mills ice-cream
cabinets 40 and 60 gal. with 15 gal. mix
compartment. 30 gal. mix cabinets only
\$115.00 each net. Mills freezers 2 1/2 and
5 gal capacity. 25 to 40% off factory list
price. Write to INTERSTATE TRADING
CORP., 51 Chambers Street, New York
7, N. Y.

"FREON" CYLINDERS & "Freon" valves:
5000 ea. "Freon" cylinders 10 lb. cap.,
4" dia. x 26" long, ICC 4B300, complete
with valve & cap. condition—good, price
\$3.90 ea. Also 6000 ea. "Freon" valves,
type H. mfg. by Bastian & Blessing
"Rego," new, price \$1.50 ea. ANTHONY
P. JANOSIK, Canterbury E-4, Camden,
N. J.

AMANA MODEL 200 walk-in freezer-
coolers, 123 cu. ft. 8'x4'x6'10" marine
bonded plywood construction. Self con-
tained 1/2 HP Universal compressor, blower
coil, 4-Dole freezer plates, factory assem-
bled, tested & charged with "F-12." All
new crated, offered subject to prior sale.
Sacrifice \$550.00 F.O.B. SD/BL. MASON,
BROWN & COLVILLE, INC., 1529 Walnut
St., Philadelphia 2, Pa.

5 HP "MILLS" condensing units, \$350.
5 HP Typhoon Weathermakers, \$295. 1 HP
Amco Weathermakers, \$175. Following
less motors: 50 HP Schnacke, \$895. 1/2 HP
Universals, \$59. Westinghouse 2 1/2 ton
used self-contained air conditioner, \$395.
Some "as is" household used refrigerators.
PILGRIM, 48-20 43rd Avenue, L. I. City
4, N. Y.

REFRIGERATORS, BOTH perfectly re-
conditioned and "as is" running and
freezing available for immediate delivery.
Detailed listing available. RICHMOND
SALES, Route #35, Woodbridge, N. J.

5 NEW STANDARD General Electric
2 Hp 3-phase 220/440 RPM 1725 motors
\$52.00; 2 3 HP Leland 3-phase 220/440
RPM 1725 motors \$58.00; Bush or Fedders
air cooled hot dipped replacement con-
densers; 1/4 HP 10" x 12" 2 row 20 sq. ft.
surface \$3.95; 1/2 HP 10" x 12" 3 row
30 sq. ft. surface \$5.95; 1/2 HP 10" x 12"
4 row 40 sq. ft. surface \$7.95; 1 1/2 HP
30" x 15 1/2" \$17.52; 2 HP 35" x 15 1/2" \$25.00;
Penn low pressure 260APOI \$5.95; Penn
water valve 246PO3 \$5.95; Order your
replacement parts on your letter head.
Complete stock Ranco, Rotary, Mueller
General, etc. RINEHART, INC., 511
Main St., Richmond, Indiana.

FRIGIDAIRE METER-MISER terminals.
Installed from the outside in a few min-
utes without opening the compressor or
removing unit. Stops leaky terminals on

1933 to 1937 units. Part No. 1150—\$5.25
set of three. Immediate delivery. Money-
back guarantee. SEALED UNIT PARTS
CO., 3097 Third Ave., New York 56, N. Y.

SEALED CROSLLEY terminals. Installed
from the outside in a few minutes with-
out opening the compressor or removing
unit. No special tools needed. Stops
leaky terminals on "F-12" units. Part #
1020 short model—for short Croslley termi-

nals ("F-12 compressors with 4 mounting
legs.) Part #1020 long model—for long
Croslley terminals ("F-12" compressors
with 3 mounting legs.) \$5.25 set of three.
Immediate delivery. Money-back guar-
antee. SEALED UNIT PARTS CO., 3097
Third Ave., New York 56, N. Y.

SUBJECT TO prior sale: hermetic Chieftain
units—1/2 H. P., \$44.50; 1/2 H. P.,
\$48.50. Other well known hermetics—1/2
H. P. fan cooled, \$52.50; 1/2 H. P. fan
cooled light duty, \$57.50; 1/2 H. P. fan
cooled heavy duty, \$59.50; 1/2 H. P. fan
cooled, \$69.50. Open units, standard
makes—1/2 H. P., \$54.50; 1/2 H. P., \$64.50;
1/2 H. P., \$84.50. Above prices quoted on
lots of six. All open units are 60 cycle,
single phase. All above units new, carry-
ing factory warranty. Write for unit list,
Minneapolis-Honeywell, Dual press. con-
trol, \$4.50; Minneapolis-Honeywell Low
press. control, \$3.00; White-Rodgers, Low
press. control, \$3.25; Genuine Frigidaire
Low press. control, \$4.25; G. E. Blower
fan motor with 10" fan, 110 v., 606, \$4.50;
Superior Heat Exchanger, 13" overall, 3/4"
x 3/4", \$4.75; Mueller Heat Exchanger,
14 1/2" overall, 3/4" x 3/4", \$5.00; Mueller
Heat Exchanger, 21" overall, 1/2" x 1 1/2",
\$9.00; Kayson heavy duty cooler locks, 13"
overall, with set of hinges, 15" overall,
complete with inside push rod and master
lock and keys, \$9.50; Kramer Trenton 1/2
ton panel blower compressor, \$35.00;
Vapor proof refrigerator lights, with
guard, \$3.00; Filter drier, silica gel, 1/4" x
1 1/4" x 6 1/4" overall, 10, \$6.50; U. S. "Freon"
gauge 4 1/2" face, 30" vac., 150# or 300#
corresponding temperature scale, red
warning hand, \$4.50; 5 lb. can Davison
refrigeration silica gel, \$1.10; Cold plates
—1-30" x 55"—2-30" x 6 1/4", 3 to a set,
\$35.00. WALTER W. STARR, 1207 W.
George St., Chicago 13, Ill.

REBUILD YOUR own sealed units. Send
us your burnt and stuck up heads and
they will be immediately replaced from
our stock. Send for our complete price
list. TECHNICAL REFRIGERATION
SPECIALISTS, 362 East 130th Street,
Bronx 57, New York.

FRANCHISES WANTED

MANUFACTURER LOCATED in east in-
terested in producing specialty item in
conjunction with refrigeration, small or
large quantity. Inquiries with full details
invited. BOX 2911 Air Conditioning &
Refrigeration News.

BUSINESS OPPORTUNITIES

AUDELS REFRIGERATION & Air Con-
ditioning Guide. A useful manual, 1280
pages. Fully illustrated, covering the
theory, construction, servicing, operation
and repair of household, commercial and
industrial refrigeration & air conditioning.
1001 facts. Easy to understand. Highly
endorsed by service men and mechanics.
Price \$4 postpaid. Money refunded if not
pleased. AUDEL PUBLISHERS, 49 West
23 St., New York 10, N. Y.

COMMERCIAL REFRIGERATION and
restaurant equipment business handling
nationally known merchandise. Located in
North Carolina city of over 100,000
population. Sales run between \$150,000
and \$200,000 annually. New building, good
location, to either sell or lease. BOX
2912 Air Conditioning & Refrigeration
News.

ESTABLISHED COMMERCIAL air con-
ditioning and domestic refrigeration busi-
ness. Location: N.Y.C. Fully equipped.
Good stock, excellent supply sources,
600 sq. ft. of shop space, one truck.
Doing over \$20,000 annually. We believe
this can be increased many times by
right party. Good opportunity for two
qualified mechanics. Reason for selling:
partner disagreement. Approx. \$4000 to
handle. BOX 2918 Air Conditioning &
Refrigeration News.

ESTABLISHED JOBBER in New York
State, will sell complete business, ap-
proximately \$25,000 inventory. Gross busi-
ness last year over \$100,000. Have valu-
able franchises. Owner has other inter-
ests, but would stay with purchaser until
well established. BOX 2919 Air Condi-
tioning & Refrigeration News.

FOR SALE

Two walk-in insulated Refriger-
ator units, 7'-0" long by 5'-3 1/2"
wide and 5'-10" high. Mfg. by
Glockler Mfg. Co., Erie, Penna.
Complete for use with ice.

Write to

DOVER FILM CORPORATION
DOVER, N. H.

SEALED NORGE TERMINALS GUARANTEED

Lots of 1 to 25 sets. 1.75 each set
Lot of 50 sets. 1.66 each set
Lot of 100 sets. 1.50 each set
Lots of 1000 or
more sets. 1.25 each set
FOB our plant

ADVANCE REFRIGERATION CO.
829 E. McNICHOLS RD.
DETROIT 3, MICHIGAN

Sales Boom As Druggist Adds Self-Serve Case For Ice Cream, Bars

DENVER—Sales of packaged ice cream, and five-cent ice cream bars, sticks, etc., have "skyrocketed" at Moritz Drug Co. here, since Morgan Ari of the store has placed merchandising entirely on a self-service basis.

The change was made in the middle of 1947, when the Moritz management determined that far too much time of drug clerks and fountain personnel was being tied up in scooping out bulk ice cream into containers, handing over ice cream bars on sticks, or delivering pre-packaged ice cream cartons.

"We made an analysis of the matter," Ari said "which demonstrated that ice cream sales were permitting little time for anything else at the fountain rail, and that to give drug clerks time for selling cosmetics, sundries, etc., we would either have to hire another fountain employee or put the ice cream sales on self-service."

The latter course was selected, due to shortages of personnel, and a self-service Weber case purchased, which with two sliding clear glass lids, and two compartments, was thought large enough to handle an ordinary day's sales.

This was installed just inside the front entrance to the store, to make it convenient for five-cent specialty customers to drop in and pick up their purchase without penetrating into the usually-crowded store. There was also the advantage that the box could be easily seen from across the street through the open doorway in the summer months.

Sales jumped so rapidly that Ari and his partner, Bert Moritz, were amazed. Customers coming into the store and seeing the glistening white enamel case invariably stopped to peer within, and "impulse sales" of ice cream began to surpass those in which the customer came in definitely to buy ice cream. By far the most surprising increase, however, was in the sale of ice cream bars, frozen fruit juice suckers, etc.

"We soon found that we had to stock the display refrigerator three to five times per day in warm weather," Ari grinned.

Typical sales now being rung up by the refrigerated self-serve display unit include 491 dozen ice cream bars sold in a single month, as much as 50 gallons of ice cream per weekend, etc. Where Moritz Drug at one time was ordering two dozen popular ice cream bars for five-cent retailing, orders now average 36 dozen at a time, and are still increasing.

Honeywell Promotes 3 to New Department



Chandler Murphy

John A. Young

John R. Bergan

\$1,550,000 Bendix Drive Gets Under Way In Sept

SOUTH BEND, Ind.—Opening advertisements in a \$1,550,000 fall campaign on the Bendix automatic washer will break in newspapers Sept. 5, in the Sept. 11 and 18 issues of *Collier's* and *The Saturday Evening Post*.

National magazine space will cost Bendix Home Appliances, Inc., approximately \$300,000, while co-operative advertising with dealers and distributors will cost more than \$1,250,000, with the bulk going to newspapers, company officials state.

Testimonial-type, two-color advertisements mark the initial advertisements in the magazine media. The opening advertisement combines testimonial and product copy, with the headline playing up the experience of a Seattle woman who "Bendixed" 28,470 diapers for four youngsters in 6½ years.

Advertising, Promotion, Merchandising Regrouped

MINNEAPOLIS—Formation of a new department of the Minneapolis-Honeywell Regulator Co. to supervise and coordinate the advertising merchandising, and sales promotion activities of the company, has been announced by C. B. Sweatt, executive vice president.

John R. Bergan has been appointed head of the new department as merchandising manager. Other changes include the promotion of Chandler Murphy as advertising manager and John A. Young as sales promotion manager. Murphy succeeds William B. Walrath who has resigned to join the Chicago advertising staff of *Fortune* magazine.

Bergan is a native of Racine, Wis., and an architectural engineering graduate of the University of Minnesota.

He joined Honeywell in 1935 and after an engineering and sales training course was assigned to the Detroit branch office as air conditioning controls salesman. He later was transferred to the Toledo office to supervise sales of heating and air conditioning controls and in 1941 was made New England air conditioning sales manager, with headquarters in Boston.

In 1944, he was named eastern regional sales manager for the company's Moduflow division, a position he held until his latest promotion as merchandising manager. He will move his headquarters from New York to the home office in Minneapolis.

Young is a native of Ossining, N. Y., and attended Haverford College, the University of Minnesota, and the Ecole du Montcel in Paris, where he specialized in architectural courses.

Prior to joining Honeywell he worked in the export department of Cargill, and until his latest promotion was serving as acting sales promotion manager.

Murphy joined Honeywell in 1935 after serving as advertising and sales promotion manager for the Gray Co., Minneapolis. Since 1935 he has served in various capacities in Honeywell's sales promotion and advertising departments, and was convention and display manager until moving to his new position.

'Boy' Meets Girl



The Norge "water boy" portable electric water cooler on its own special stand with waste receptacle serves as an orange juice stand for Joyce E. Thoresen, "Miss Press Photo of 1948" as she serves H. G. Hillyer and R. F. Cates, Norge district representatives.

Curley Joins Wurzburg Store

GRAND RAPIDS, Mich.—Appointment of Edwin F. Curley as general merchandising manager at Wurzburg's department store here has been announced by Fred G. Schoeck, president.

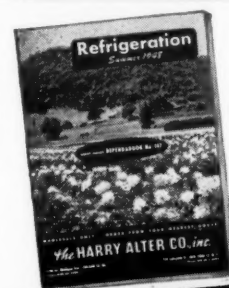
Fiberglas Appoints Daly Advertising Manager

TOLEDO, Ohio—Stephen J. Daly, formerly special assistant to the director of advertising, E. I. du Pont de Nemours & Co., Inc., has been named advertising manager of Owens-Corning Fiberglas Corp. here.

Daly has been associated with the advertising department of the du Pont company since 1935. He has been associated with the du Pont magazine, the "Cavalcade of America" radio program, and for several years was a divisional advertising manager handling the advertising of such products as pigments, ammonia, and neoprene synthetic rubber.

During World War II, Daly served four years as Personnel Officer at Fort Hamilton, Brooklyn, N. Y. He won the Treasury Department's Distinguished Civilian Service Award for setting War Bond sales records.

As advertising manager of Owens-Corning Fiberglas, Daly will manage the company's advertising activities under the direction of E. C. Ames, director of advertising.



THE HARRY ALTER CO.

WHOLESALE ONLY

Summer Edition of the DEPENDABOOK No. 147 Refrigeration Parts Catalog

Please write early (on your own letterhead) for your copy of this newest edition of the most complete catalog in the business.

1728 S. MICHIGAN AVE., CHICAGO 16, ILL.
134 LaFayette St., New York 13, N. Y.

ESKIMO KOOLER

"world's finest display cabinets"—

The ultimate in selling value for your frozen foods and ice cream accounts!



Available in 15 and 25 cu. ft. sizes with or without wall or aisle type merchandising superstructures.

"Frostline Control" to minimize condensation.

Slide-away plate glass roller lids.

Mounted in rubber, with 18-gauge stainless steel frame.

Dealers and Distributors—Increased production has made new territories available. For more information about this real Profit line, write—wire—phone

ESKIMO KOOLER CORP.

916 EAST 43RD ST.
CHICAGO 15, ILLINOIS

CLARK BRIDGMAN CO.
549 W. WASHINGTON BLVD.
CHICAGO 6, ILL.

Sales and Engineering
Product Coolers, Evap. Condensers
Air Conditioning, Liquid Coolers
Water Chillers, Heat Exchangers
Liquid Receivers

A. A. Reed, 14 Poplar Park, Pleasant Ridge, Mich.
R. R. Gregory, P. O. Box 184, Easton, Ill.
R. E. Kenney, 4243 Crocker Ave., Minneapolis, Minn.



LOOK FOR THIS NAMEPLATE ON QUALITY REFRIGERATION EQUIPMENT

GENERAL'S new streamlined 14 cubic foot freezer with its gleaming stainless steel top and lids is now available for immediate delivery. Equipped with dividers and sliding baskets, it is built for lifetime trouble-free operation. Model CR14 and its big brother Model CR20 (20 cu. ft.) are a source of profit to the dealer and satisfaction to his customer.



WRITE FOR ILLUSTRATED CATALOGUE

GENERAL REFRIGERATORS CORPORATION
678 BROADWAY, NEW YORK 12, N. Y. • GRAMERCY 3-1222

For those who would lead America's Sales Armies . . .

The Marshal's Baton

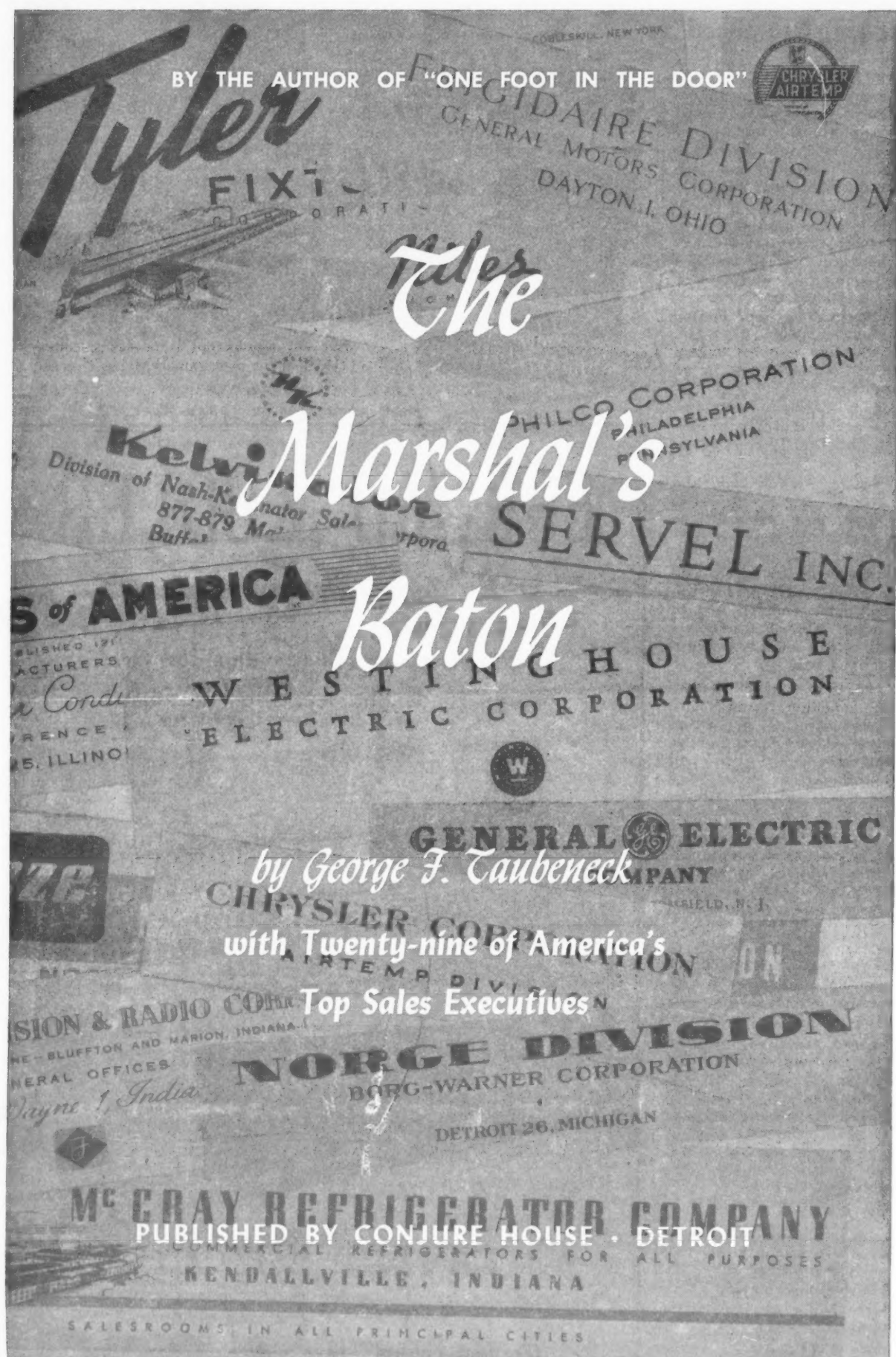
offers a brilliant new
SOURCE OF POWER

You laughed a lot and learned plenty from "One Foot in the Door." Now the same author gives you the "advanced course." George F. Taubeneck's new book, "The Marshal's Baton," presents 572 pages of condensed information on what America's leading sales executives have learned about managing every type of business in our industry.

Each chapter was edited by one or more of the most successful men in the business world. Their additions to these chapters, drawn from personal experience, are priceless. As George Jones of Servel puts it in his introduction to "The Marshal's Baton":

"Never before, to my knowledge, have America's leading practitioners of this New Art revealed their methods between the covers of a book . . . For half a million dollars, or maybe a million, you couldn't buy the knowledge and advice it contains . . . By poring over this book you can acquire some of the distilled wisdom and "know how" America's top sales-minded executives have accumulated painfully during the last three decades."

It's a big book, a useful book, and an important contribution to our industry. Every business firm should have one or more copies handy at all times.



WHO Some of These Leaders Are

Howard E. Blood,
President and General
Manager, Norge.

Louis Ruthenburg,
President, Servel.

Frank Pierce,
President, Dearborn Motors;
former Vice President,
General Motors.

Lee A. Clark,
Assistant General Sales
Manager, Frigidaire.

Henry Burritt,
President, Eureka Williams.

T. K. Quinn,
President, Monitor.

W. Paul Jones,
Vice President, Philco.

C. J. Lawson,
Vice President in Charge of
Sales, Kelvinator.

Dan A. Packard,
Sales Manager, Kelvinator.

A. M. "Mike" Sweeney,
Manager of Sales, General
Electric (Appliance &
Merchandise Dept.)

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